EM Corporate Data Collection Guidance for the Interim Data Management System (IDMS) and the Analysis and Visualization System (AVS)

April 5, 1999
Rev. 2.0

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1.0 Introduction

This guidance package is provided as a follow-on to the December 21, 1998, "Guidance for the Spring Update to the EM Corporate Database: Life-cycle Planning Data, FY 2001 Budget Formulation Information, and *Paths to Closure*" (hereinafter referred to the "12/21/98 Guidance"). The "12/21/98 Guidance" provided overall policy and implementation information to Operations/Field Offices and Headquarters about the Office of Environmental Management's (EM) annual process of updating the EM Corporate Database. This detailed guidance package provides line-by-line instructions for data entry/submission to the EM Corporate Database through the Interim Data Management System (IDMS).

The "EM Corporate Data Collection Guidance" complements the "IDMS Instructions Manual, Rev. 0.0", February 15, 1999 which describes how to navigate and use the IDMS web application. This guidance focuses on what goes in each field while the IDMS Instruction Manual focuses on how to put data in each Field. This guidance also covers requirements for the Analysis and Visualization System (AVS), which Operations/Field Offices are using to provide life-cycle stream disposition data for waste and spent nuclear fuel. All policies and procedures that were outlined in the "12/21/98 Guidance" are to be followed while completing the submission of data through IDMS and AVS.

Data are due to Headquarters in IDMS on April 15, 1999. Draft data are due to Headquarters in AVS on March 15, 1999, with a final AVS submittal due on April 15, 1999. See Section 1.3 and 1.4 for the submission process.

1.1 Data Overview

Data collected in IDMS and in AVS will be used to meet numerous national EM requirements including the FY 1999 *Paths to Closure* Report, FY 2001 budget formulation and justification, EM performance planning and measurement, and Complex-wide technical analyses.

In order to meet national requirements, data are required at five levels in accordance with the approved Integrated Planning, Accountability, and

Budgeting System (IPABS) data requirements signed on December 18, 1998.

- Project (i.e., PBS)
- Stream Disposition Data
- Geographic Site
- Site Summary
- Operations/Field Office

A schematic showing the data required at these five levels is shown in Exhibit 1.1. Data are collected through either IDMS or AVS. These five levels are discussed in more detail below.

Project Baseline Summary (PBS) Level

Project Baseline Summaries (PBSs), which must reflect site baselines at the time they are prepared or updated, form the cornerstone of EM's Corporate Database. Four general types of PBS-level information are collected:

- General Project Information, which contains general descriptive information about the PBS as well as PBS narratives;
- Baseline information, including cost, scope, and schedule;
- Budget information, specifically the BA data for the three-year budget window; and
- Performance measure information to track project performance.

All of the above information is collected in IDMS. The valid list of PBSs is in Table A-1 of Attachment A. Detailed instructions for providing these data are included in Sections 3.1 and 5.0 of this guidance package.

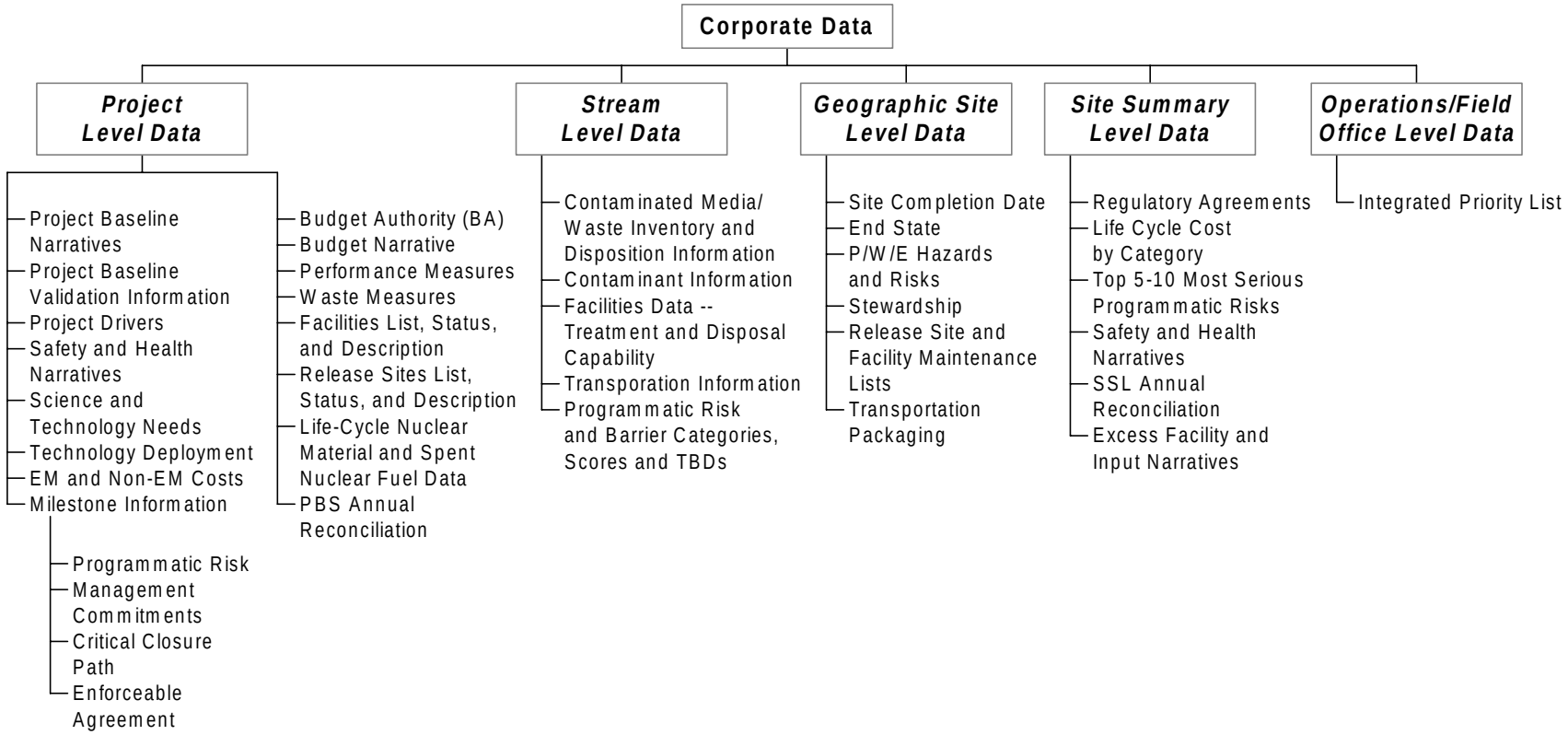
Stream Disposition Data (SDD) Level

SDD include the life-cycle planning information for all EM waste and spent nuclear fuel including generation rates, treatment, and disposition. SDD are linked to PBSs and are a key component of the EM Corporate Database. SDD are collected in AVS. SDD and AVS are discussed in more detail in Section 6.0 of this guidance package.

Geographic Site Level

EM Headquarters collects some data at the geographic site level, including site completion dates, site end states, stewardship information, and public, environmental, and worker (P/E/W) risk information. Geographic site-level information is collected in IDMS and detailed instructions for providing these data are included in Section 3.2 of this guidance package. The valid list of geographic sites can be found in Table A-2 of Attachment A.

Exhibit 1.1: Data Requirements by Reporting Level



Site Summary Level (SSL)

Some Corporate data are collected at the SSL, including life-cycle cost by category and subcategory, safety and health narratives, and an annual SSL baseline reconciliation. For the complete scope of requirements at the SSL and more detail about how to complete them, see Section 3.3 of this guidance. The valid list of SSLs can be found in Table A-3 of Attachment A.

Operations/Field Office Level

The Integrated Priority List, which is used to defend the EM budget Departmentally and to OMB, is requested at the Operations/Field Office level. Detailed guidance on how to complete the IPL in IDMS is included in Section 4.0 of this guidance. The valid list of Operations/Field Offices can be found in Table A-4 of Attachment A.

1.2 Organization of this Document

This document is organized into six main sections:

1.0 Introduction
2.0 Logging in to IDMS and getting started
3.0 Planning guidance
  3.1 PBS-level data
  3.2 Geographic site-level data
  3.3 SSL data
4.0 Integrated Priority List guidance
5.0 FY 2001 Budget Formulation guidance
6.0 Technical guidance for SDD collected through AVS

In addition to these sections, this document also contains the following attachments:

- A compendium of valid lists for IDMS (e.g., PBS, SSL, Geographic Site, etc.)
- A compendium of valid lists for AVS
- Definitions for EM Corporate Performance Measures, BA categories and subcategories, and life-cycle cost categories and subcategories
- A description of the rules used to derive annual waste quantities and performance measures from SDD
- A description of the rules used to derive annual release sites and facilities annual quantities from the release sites and facility tables
- Cost De-Escalation Methodology

The line-by-line guidance is numbered to follow the overall screen layout and organization of IDMS (see Exhibit 1.2 for a schematic diagram). The data collected through IDMS and AVS and discussed in this guidance are consistent with the approved data requirements

outlined in the December 18, 1998, "IPABS Data Requirements" document that was signed by the Assistant Secretary for EM. Changes to the data requirements are under change control. Table 1.1 demonstrates the linkage between the data requirements and the screens in IDMS:

Table 1.1: Data Requirements by Screen

Data Level	Screen Number	Screen Title	Associated Data Requirements
Planning-PBS	3.1.1	General Information	1022, 1049, 1054, 1068
	3.1.2	PBS Cost	1046, 1048
	3.1.3	Waste	1017, 1018, 1021, 1029
	3.1.4	Nuclear Materials	1041
	3.1.5	Spent Nuclear Fuel	1017
	3.1.6	Release Site Cleanup	1090, 1031
	3.1.7	Deactivation	1096, 1097
	3.1.8	Decommissioning	1096, 1097
	3.1.9	Milestones	1033
	3.1.10	Deployments	1008, 1020
	3.1.11	PBS Reconciliation	1026
	3.1.12	Technology Needs	1020, 1088
Planning-Geographic Site	3.2.1	General Information	1051, 1073, 1075
	3.2.2	Stewardship	1074, 1077
	3.2.3	Risk	1509, 1511
	3.2.4	Release Site Maintenance	1031, 1090
	3.2.5	Facility Maintenance	1096, 1097
Planning-Site Summary Level	3.3.1	Cost	1039
	3.3.2	Regulatory Agreements	1038
	3.3.3	Safety and Health	1022
	3.3.4	Annual SSL Reconciliation	1101
IPL	4.0	Integrated Priority List	1008

Data Level	Screen Number	Screen Title	Associated Data Requirements
Budget-PBS	5.1	Budget Narratives	1003
	5.2	Budget Authority	1001
	5.3	Waste	1017, 1018, 1021, 1029
	5.4	Nuclear Materials	1041
	5.5	Spent Nuclear Fuel	1017
	5.6	Release Sites	1031, 1090
	5.7	Facility Deactivation	1096, 1097
	5.8	Facility Decommissioning	1096, 1097
	5.9	Technology Deployments	1008, 1020

1.3 Schedule

Key dates related to the Spring 1999 update to the EM Corporate Database include:

March 15 Draft SDD due in AVS (sites and HQ begin review)

April 15 Final Life-cycle Planning and FY 2001 budget formulation data due to HQ in IDMS. This is the 4/15 "approved" dataset
Final SDD due in AVS

April 30 Updates to site summaries for the national *Paths to Closure* due

May 14 Draft site *Paths to Closure* reports due (with disposition maps)

June Site and national *Paths to Closure* issued

1.4 Submission of Data

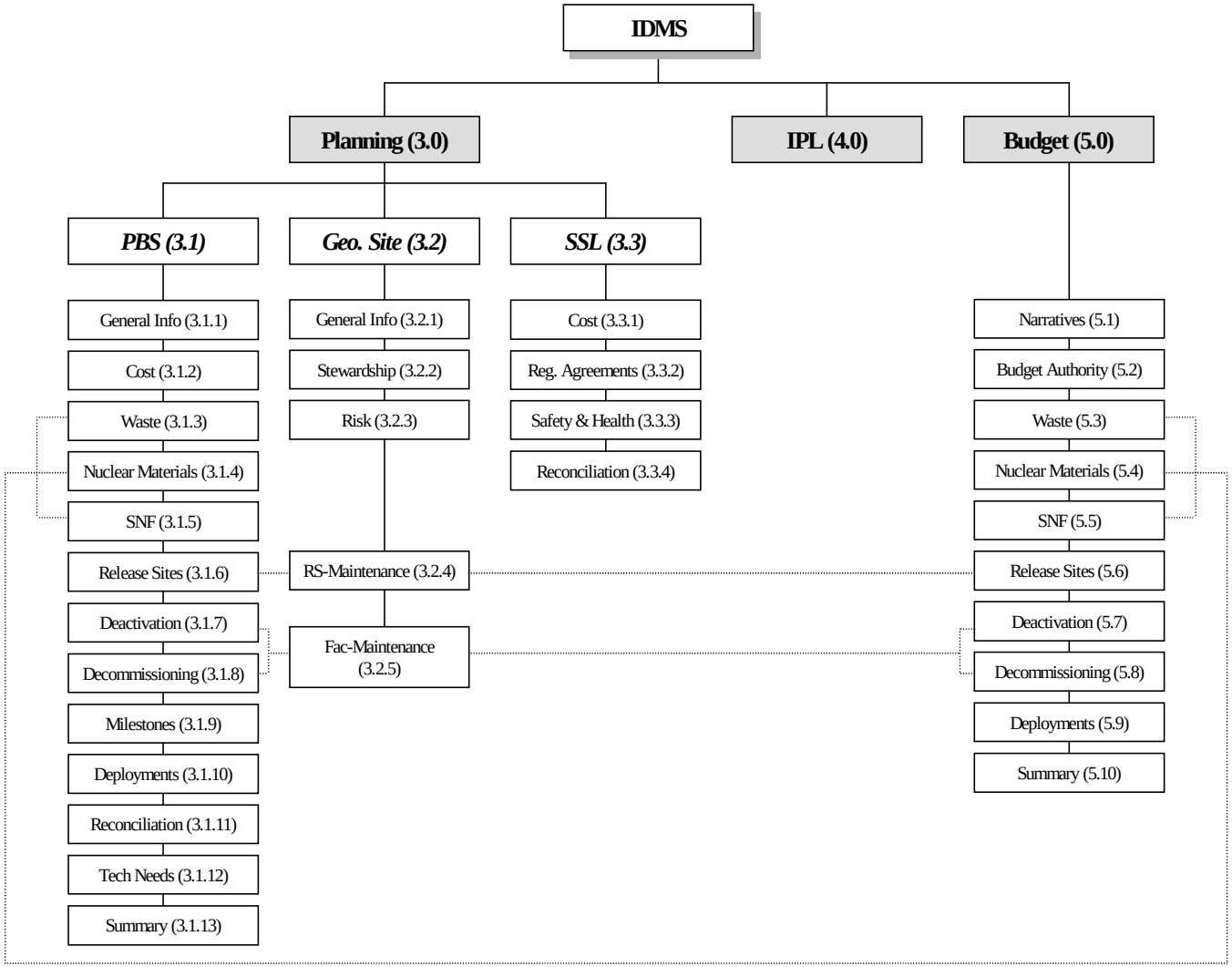
Working data is defined as the data that those users with access rights can update/edit prior to April 15, 1999. Working data has not been approved by the Operations/Field Office approval authority. Prior to the approval of the data (by the appropriate approval authority), the only dataset that will be accessible in IDMS is the "Working" dataset. The "Approved" dataset consists of data that has been reviewed and signed-

off on by the appropriate approval authority at the Operations/Field Office.

> Submission of the "Approved" data will require signatures from each PBS Manager and the Manager of the Operations/Field office. This process will be described under separate cover.

The approval authority was identified by the Field CIO Point of Contact. Approved data will be available to other Operations/Field Offices and Headquarters for viewing and is "read only". Once data is approved, a new "Working" dataset will be created from the approved dataset so that Operations/Field Offices can update data at any time. However, the "Approved" dataset will be considered the official dataset at Headquarters until changes are formally approved.

Exhibit 1.2: Overall Screen Layout and Organization of IDMS



2.0 Login Screens and Selection Screens

2.1 Login Screen

Detailed information about logging in to and navigating through IDMS can be found in the IDMS Instruction Manual, Rev. 0, February 15, 1999. This guidance highlights some key points from the Instructional Manual.

IDMS can be accessed on the Internet through Netscape Navigator (3.01 or higher) or Internet Explorer (3.02 or higher) at http://idms.em.doe.gov/idms. The first screen that the user will see when entering the Interim Data Management System (IDMS) is the "Login" screen:

User ID

Enter the user ID that has been assigned to you by your Operations/Field Office lead Point of Contact (POC) or by the system administrator. This field is not case sensitive.

Password

Enter the password that has been assigned to you by the system administrator. This field is not case sensitive.

After you have entered your User ID and Password, click on "login" to enter the IDMS system.

> If you don't have a user ID and password or you have forgotten your password, call IDMS Support at (703) 345-2106.

Your User ID and Password govern the specific "rights" that you will have in IDMS. Most importantly IDMS is likely to restrict your access to working data for a specific Operations/Field Office or Headquarters. The fields you can edit or update versus read or view are controlled as well.

2.2 Choose a Dataset Screen

Choosing a Dataset

From the pull-down menu, select the dataset that you wish to update/view. Prior to the approval of the data around April 15, the only dataset that will be available to the user is the "Working" dataset. The "Approved" dataset will be available after the data is formally approved by the designated approval authority at the Operations/Field Office.

2.3 Choose a Module Screen

On this screen, the user will select from one of five modules

- Integrated Priority List
- Budget
- Planning
- Report
- Approval

If the approved dataset was selected on the previous screen, data in the IPL, Budget, and Planning modules will be read-only. Reports are always read-only. The Approval Module is only accessible to selected individuals at each Operations/Field Office. Write access to data in each module depends on the type of user access rights that the user has been given.

Choosing a Module

From the pull-down menu, select the module that you would like to enter.

You can also click on the icons of the same name at the bottom of the screen to enter these modules. These icons appear on most screens in the application.

Help

Contact Us: Click on this icon to contact IDMS Support. IDMS Support is available to answer questions about the tool and the associated data requirements. You may also contact IDMS Support by calling (703) 345-2106 between 8:00 a.m.- 6:00 p.m. eastern time.

Help: Click on this icon to access the "IDMS Instructions Manual" online. The "IDMS Instructions Manual" provides step-by-step guidance on how to navigate through IDMS and should be used in conjunction with this document.

3.0 Planning Module

This module contains the "life-cycle" planning data for the EM program. All life-cycle data must be supported by additional site documentation that is available for review. For the purposes of this application, "life-cycle" data is defined as:

- Project (PBS) information from 1997 through project completion or 2070, whichever is earlier,
- Stream disposition data (SDD) from 1998 through final disposition of all streams,
- Geographic site data (including a list of release sites and facilities that have been managed by the EM program) for all geographic sites that were historically completed under the management of the EM program or still are part of the EM program, and
- Site summary level (SSL) data from 1997 through SSL completion or 2070, whichever is earlier.

> Life-cycle planning information must be provided for all EM scope including Headquarters-managed activities like Science and Technology, Transportation Management, and Program Support. Valid PBSs exist for these activities that must be completed.

Project Baseline Summary

At the project baseline summary (PBS) planning level, IDMS will provide a valid PBS list for the Operations/Field Office (or Headquarters) in a pull-down list. (See Table A-1 of Attachment A for the valid list of PBSs.) This list can only be modified through change control processes. The PBS level includes PBS general information; cost; annual waste, nuclear material, and spent nuclear fuel data; release site and facility information; milestones; annual reconciliation; and technology information. For more detailed instruction on PBS data refer to Section 3.1, Project Baseline Summary.

Geographic Site

At the geographic site planning level, IDMS will provide a valid list of geographic sites in a pull-down list. (See Table A-2 of Attachment A for the valid list of geographic sites.) This list is managed through change control. The geographic site level includes completion dates, end state status, stewardship information, and other data. For more detailed instruction on geographic site data refer to Section 3.2, Geographic Site.

Site Summary Level

At the site summary level (SSL) planning level, IDMS will provide a valid list of SSLs for the Operations/Field Office in a pull-down list. (See Table A-3 of Attachment A for the valid list of SSLs.) This list is managed through change control. This level includes annualized life-cycle SSL cost by category, safety and health narratives, regulatory agreement information, programmatic risk information, and other data. For more detailed instructions on SSL data refer to Section 3.3, Site Summary Level.

3.1 Project Baseline Summary Level

Project (PBS) data collected through the PBSs are the cornerstone of EM's Corporate Database. PBS planning information should reflect site baselines, which are the basis for *Paths to Closure*, integration, analysis, and communication of the scope of the EM program. This year's baseline data should reflect changes from last year's PBS submission. In fact, a key component of the data submission will be a comparison of this year's cost, scope, and schedule to last year's (see Section 3.1.11). The PBS information provided by the Operations/Field Office should be supported by site documentation maintained by the Operations/Field Office. Section 8.1 of the "12/21/98 Guidance" gives an overview of PBS data requirements. This section will discuss PBS planning requirements in the context of the IDMS data-collection tool.

3.1.1 General Information

The PBS General Information tab is where the user will be able to view/update the general PBS information including a series of general PBS narratives (Requirement 1054), project manager information (Requirement 1068), safety and health-related narratives (Requirement 1022), regulatory drivers (Requirement 1068), and project validation information (Requirement 1049) for a particular PBS.

Entering PBS General Information

Click on the blue "Gen. Info." tab on the PBS planning screen to enter PBS general information. The following fields, controlled by Headquarters, will display for the PBS. These following elements are managed through change control and require a formal request to be changed:

SSL Name: This field displays the SSL name with which the project is associated. This field cannot be edited on this screen. To change this information, the user must go through the Headquarters change control process to be provided.

Date Added: This field displays the date that the project was added to the EM program. This field cannot be changed. PBSs that were part of the original *Paths to Closure* list show 12/01/1997. PBSs added in the last year will show the date upon which the PBS was recognized.

Line Item No: If applicable, this field displays the line item construction project number associated with the PBS. Each PBS can have one and only one line item construction project number associated with it. However, the capital and operating portions of a line item construction project can be in the same PBS. This field cannot be edited. To update this information, contact EM-23.

High Visibility: This field indicates if the project is a high visibility project. The High Visibility PBS designation is locked in IDMS. Criteria for identifying high visibility projects are: 1) the project is recommended by the Field or Headquarters, 2) the project is critical to the success of the EM program, 3) the project is of high stakeholder interest, and/or 4) the project has a large total cost, large potential cost savings, or large mortgage reduction potential. These projects warrant increased scrutiny from Headquarters in planning, execution oversight, and evaluation. If a project is tagged as "High Visibility," then it must have at least one management commitment in the execution year.

Editing Information on the PBS Gen. Info. Screen

FEDPLAN: Click inside this box to indicate that the PBS is FEDPLAN (formerly A-106 Plan) compliant, meeting the requirements set forth by the United States Environmental Protection Agency (U.S. EPA). Executive Order (E.O.) 12088 requires federal agencies to develop and maintain plans to comply with environmental regulations. These plans must include all necessary actions for the prevention, control, and abatement of environmental pollution with respect to their facilities. Under E.O.12088, agencies are required to submit these environmental plans to the EPA, which reviews the plans and provides advice and compliance assistance to Federal agencies. E.O. 12088 authorizes EPA to conduct reviews and inspections to monitor compliance and to ensure the adequacy of Federal agency environmental planning. The process of submitting, reviewing, and analyzing agency plans and providing compliance assistance is known as the FEDPLAN process.

Project Description

The PBS narratives included in this section are essential to define the scope of the PBS. They are used to broadly describe the scope of the PBS for use in numerous reports including *Paths to Closure*. Enter the text for each narrative in the box provided under the appropriate narrative heading (e.g., "Purpose, Scope, and Technical Approach," "FY 2006 Status," etc.). IDMS has a cut and paste feature so that narrative information can be moved across fields and/or from word processing applications. The scroll bar on the right side of each narrative box enables you to scroll down to read the entire narrative. NOTE: The entire narrative can be viewed on the "PBS Summary" tab.

> There is no system-limit on the length of the narrative fields, but please try to keep each narrative to fewer than three 8 ½ by 11, 12 point pages.

Purpose, Scope, and Technical Approach: Enter the PBS purpose, scope, and technical approach narrative. This narrative should provide a brief, timeless description of the project, the overall scope of the project, the technical approach for completing the work scope associated with the project, and any assumptions associated with the project.

> If quantitative information is provided, it must be consistent with metrics and other quantitative data provided elsewhere for the project (for example, waste volumes must be consistent with those provided in AVS).

FY 2006 Status: FY 2006 is a key point by which Congress and other stakeholders measure progress. In this field, enter the key project work scope to be completed by the end of FY 2006. If the entire project is scheduled to be completed by the end of FY 2006, state this in the narrative.

Post-2006 Scope: Provide a discussion of activities that are scheduled to occur after FY 2006 for this PBS.

End State: Provide an end state (or end point) narrative that describes the situation associated with the PBS at the time of completion with specific emphasis on land, groundwater, facilities, waste, nuclear materials, and/or spent nuclear fuel. If these categories are not applicable, then broadly describe the outcome or resultant benefit of this PBS when it is completed.

Cost Baseline: Broadly describe the cost-estimating methodology used to develop the estimate for this PBS (e.g., bottoms up, parametric, etc.). Explain the basis for the PBS cost estimates, including major assumptions that significantly affect the cost estimate.

Hazards: Describe the most serious safety and health hazards that the PBS addresses. This narrative should include hazards to the public and the environment. Hazard information such as the specific chemical(s) or radioactive material(s) should be included.

Work Performance: This is a safety and health-related narrative to describe the activities and checkpoints needed to ensure readiness prior to start of work, measures used to monitor adequacy of safety controls, and mechanisms that will be used to identify unforeseen hazards.

Project Drivers

This section enables the PBS Manager to identify the specific drivers for this PBS. Often, EM is asked to identify the drivers for cleanup work. The following list contains the drivers of interest:

CERCLA: Place a "✓" in the box after the name to indicate that the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is a statutory driver for the project.

RCRA: Place a "✓" in the box after the name to indicate that the Resource Conservation and Recovery Act (RCRA) is a statutory driver for the project.

DNFSB: Place a "✓" in the box after the name to indicate that the requirements of the Defense Nuclear Facilities Safety Board (DNFSB) are a driver for the project.

DOE Orders: Place a "✓" in the box after the name if DOE Orders are a driver for the project.

AEA: Place a "✓" in the box after the name to indicate that the Atomic Energy Act (AEA) is a statutory driver for the project.

UMTRCA: Place a "✓" in the box after the name to indicate that the Uranium Mill Tailings Radiation Control Act (UMTRCA) is a driver for the project.

State: Place a "✓" in the box after the name if state regulations, requirements, and/or statutes are a driver for the project.

Other: Place a "✓" in the box after the name if the project is required by other drivers.

PBS Manager Information

Name: Enter the name of the Operations/Field Office of Headquarters PBS Manager. There should only be <u>one</u> name entered into this field, and the name should be fewer than 100 characters. The PBS Manager should represent the **federal** person directly responsible for the oversight, management, and execution of the work scope of the PBS.

Phone: Enter the phone number of the PBS Manager in the following format (XXX) XXX- XXXX.

Fax: Enter the fax number of the PBS Manager in the following format (XXX) XXX- XXXX.

Email: Enter the Internet email address of the PBS Manager.

Baseline Validation

An independently validated baseline demonstrates that it is defensible with respect to scope, schedule, and cost. The IPABS Handbook discusses baseline validations:

> "A credible and independent validation of each site's baseline is an expectation of Congress, OMB, local stakeholders, Tribal Nations, and EM. Baseline validation is a one-time event . . .

> The Field will select the validation organizational team with the concurrence of the Headquarters Site Lead. Independent baseline validation will be conducted by a team or organization that is clearly independent of the business implications of the validation results . . . The outcomes of the validation must be discussed, negotiated, and then incorporated into the project baseline through the change control process."

Validated: Place a "✓" in this box to indicate that the portion of the site baseline included in this PBS has been validated by an independent organization. If this box is checked, enter the date that the PBS was validated in the "Date" field.

Date: Enter the month, day, and year that the PBS was validated (MM/DD/YYYY). This field must be completed if the "Validated" box is checked. If a date is entered in this field, the system automatically checks the "Validated" box.

HQ Approval: This field displays the status of the Headquarters approval for the PBS. To make changes to the status of the Headquarters approval, the user must coordinate with the Headquarters Site Lead.

Description: Enter a narrative in this field to provide information on the PBS validation methodology, such as the organization who performed the validation and the name of any reference documents that exist to support the validation.

Entering Budget Narratives

From the PBS-level General Information screen, the system provides a link to the Budget Narratives screen in the budget module of IDMS. The purpose of this link is to enable the user to cut and paste text from the PBS narratives into the "Project Description" narrative in the budget module. At the bottom of the PBS "Gen. Info." screen, select the gray "Budget Narratives" button to enter/view the budget narrative fields. On the "Budget Narratives" screen, use the cut and paste capabilities to summarize the "Purpose, Scope, and Technical Approach" narrative in the "Project Description" narrative in the budget module. For more detailed guidance on the budget narrative fields, please refer to Section 5.1 of this document.

3.1.2 PBS Cost

Operations/Field Offices (or Headquarters for HQ PBSs) are required to provide an annualized "life-cycle" estimated cost profile for each PBS (Requirement 1048) in **current year dollars**. The "life cycle" is considered the estimated cost from 1997 through PBS completion (or 2070, whichever is earlier) as reflected in site baseline documentation. It is expected that sites will have detailed supporting documentation available to support the numbers provided. In addition to providing total

baseline estimates for each PBS, the Operations/Field Office (or Headquarters for HQ PBSs) is also asked to provide, where applicable, estimated percentages of non-EM costs that are included in the baseline (Requirement 1046). This will establish the "life-cycle" EM cost for the PBS.

> Costs are to be entered in current year dollars. Current year dollars include the effect of inflation.

Entering PBS Cost Data

Data entry fields for the cost tab include total PBS costs by year, percent of non-EM costs in the baseline by year, non-EM cost source, and actual costs (for FY 1997 and FY 1998). To enter PBS costs, the user will be working in three screens.

- On the first screen, the user will be able to enter the total planned PBS costs ("Total Cost") for FY 1997- FY 2070 and actual EM costs ("Actual Cost") for FY 1997 and FY 1998. In addition, the system calculates the total EM cost, based on the percentage of cost designated as non-EM.

- To add an organization and its associated costs for a non-EM component of the baseline, click on the gray "Add" button at the bottom of the screen. This will take you to the non-EM cost screen, where an organization can be added.

- To enter annual inflation (escalation) rates, select the gray "Constant $s" button and IDMS will take you to a screen where the EM cost in constant 1999 dollars will be displayed based on the EM planned costs and the inflation (escalation) rates entered.

Total Costs: For each year between FY 1997- FY 2010 (inclusive), enter the estimated PBS cost in thousands of **current year dollars** as documented in site baselines.

> Outlays for existing privatization projects must be included in PBS cost estimates. Outlays should be provided in terms of cost, not BA.

For FY 2011- FY 2070 (or until PBS completion), enter total estimated PBS costs in five-year blocks in thousands of current year dollars. In other words, include inflationary adjustments in the estimate. The current assumption should be 2.7% in FY 2000 and 2.1% per year inflation (escalation) beyond FY 2000. **Users should note that FY**

2000 was seeded with a 2.1% inflation (escalation) rate that must be updated to reflect the 2.7% inflation (escalation) rate policy that was recently issued.

> Note on Seeding: IDMS was seeded with last year's PBS current year costs adjusted to 2.1% inflation (escalation) from last year's 2.7% inflation (escalation).

Entering Non-EM Cost Data

Some baselines contain costs expected to be paid by an entity other than EM. To enter the percent of non-EM cost in the PBS baseline, select the "Add" button at the bottom of the cost table. The system will link to a screen that provides a drop-down list of organizations. Select a non-EM organization and a non-EM cost category ("Newly Generated Waste" or "Other than Newly Generated Waste") from the drop-down list. Examples of non-EM cost categories include waste management costs that will be transferred back to the generator (newly-generated waste) or costs for which the state or another party is responsible (other than newly- generated waste). Choose the "Add Organization" button and the organization will appear on the PBS Cost screen for entering the percent of non-EM cost. If there is more than one source of non-EM cost, repeat these steps to include additional organizations on the PBS Cost screen.

> All non-EM newly-generated waste costs must be clearly identified by PBS. These costs will be excluded from *Paths to Closure*.

Non-EM (%): If applicable, the non-EM organization that was chosen will appear in the table. Enter the percent of baseline cost (e.g., 12%) that is attributed to this non-EM organization.

EM Costs: This field is calculated by IDMS when the "Save" button is selected using the total PBS Costs and non-EM organization percent. This field cannot be edited. To adjust the EM cost, adjust the total PBS cost and/or the non-EM percent.

Entering Actual Costs

Actual Costs: IDMS will display FY 1997 actuals for the PBS as provided for the last *Paths to Closure* submittal **(Note: This field was seeded incorrectly and must be updated)**. The user should enter actuals for the PBS for FY 1998 in thousands of actual dollars and make necessary adjustments to the FY 1997 column. Actuals for FY 1997 and FY 1998 have been collected previously though other means, but this is the first time that actuals for FY 1998 have been collected by PBS. Actual cost totals by PBS for FY 1998 for the Operations/Field Office should be consistent with what has been provided previously.

For FY 1999 and beyond, actual costs by PBS will be collected directly from the MARS financial reporting system.

Budget: The Budget Authority (BA) totals for the PBS for FY 1997, FY 1998, and FY 1999 are displayed in this field. This information was provided by EM-23 and cannot be updated.

Totals: At the bottom of the table, IDMS automatically calculates total estimated costs for the PBS for FY 1997- FY 2006, FY 2007- FY 2070, and FY 1997- FY 2070.

Entering Inflation (Escalation) Rates

To enter annual inflation (escalation) rates, select the "Constant $s" button on the bottom of the PBS Cost table. If the "EM Costs" column is not calculating when initially entering the inflation (escalation) screen, select the "Save Changes" button at the bottom of the table and the field will calculate.

The inflation (escalation) rates beyond FY 2000 in IDMS are seeded with the CFO guidance rate of 2.1% based on the Office of Management and Budget. **The FY 2000 rate should be 2.7%**.

EM Costs: This field is calculated by IDMS using the total PBS Costs and non-EM organization percent. This column is in thousands of current year dollars.

Inf. Rate: Enter the inflation (escalation) rate for each year for the PBS using 1999 as the base year. Therefore, the inflation (escalation) rate for 1999 is "0". The inflation (escalation) rate for each year will be applied to the estimated EM costs as entered in current year dollars to get constant 1999 dollars. The inflation (escalation) rate should be entered as a decimal (e.g., .021). Note that the user should enter "0" for the inflation (escalation) rate for 1997 and 1998 as these are provided as actual costs.

Since the calculation is based on constant 1999 dollars, the inflation (escalation) rates for **FY 1997** and **FY 1998** should be entered as NEGATIVE values.

The following methodology is used to calculate constant from current year dollars using the Field-specified inflation (escalation) rates:

$$x_{n199} = \frac{y_n}{(1+r_n)(1+r_{n-1})...(1+r_{99})}$$

Where r_n = inflation (escalation) rate for year "n"
y_n = current year dollar value for year "n"
x_{n199} = constant 1999 dollar value for year "n"
n = current fiscal year

For the five year blocks (2011-2070), each year in the 5-year block is assigned 1/5 of the 5-year block total before values are de-escalated. The inflation (escalation) rate for the 5-year block is applied to each year of the block. Annual values are de-escalated. The years in the 5-year block are summed after de-escalation to create the de-escalated value for the 5-year block.

Constant $s: IDMS automatically calculates the PBS costs in constant 1999 dollars for each year based on the inflation (escalation) rates and current year dollars provided when the "Save Changes" button is selected.

Total: For EM Costs, IDMS will automatically calculate total costs for FY 1997- FY 2006, FY 2007- FY 2070, and FY 1997- FY 2070 in thousands of constant 1999 dollars.

Paths to Closure will use constant 1999 dollars.

Defining Categories and Subcategories

Data provided in Sections 3.1.3 (Waste), 3.1.4 (Nuclear Materials), 3.1.5 (Spent Nuclear Fuel), 3.1.6 (Release Site Cleanup), 3.1.7 (Deactivation), and 3.1.8 (Decommissioning) demonstrate the life-cycle scope of the EM program. This information is provided by category and subcategory as outlined in EM's set of corporate performance measures. The same measures will be used to establish the fiscal year goals that will accompany the FY 2001 budget request, representing an "annual slice" of the life-cycle objectives (see Sections 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, and 5.9 for budget-related performance measures data). The budget authority crosscut, as outlined in Section 5.2, refers to a category/subcategory breakout that aligns with the valid list of EM corporate performance measures. Refer to Attachment C for a the list and definitions of EM's corporate performance measures and BA crosscut categories and subcategories.

3.1.3 Waste

Planning Data for Waste Streams

Waste stream data are requested consistent with Requirement 1017, 1018, 1021, and 1029. Waste stream data are collected through the Analysis and Visualization System (AVS). Stream Disposition Data (SDD) must be linked to PBSs in accordance with the "12/21/98 Guidance"; they represent the estimated pathway for the disposition of all contaminated media/waste in the EM program. SDD comprise the underlying data for disposition maps and integration planning, and are an important component of PBS baselines (where applicable). SDD are rolled up and displayed in IDMS using a series of rules (or "recipes"). SDD are discussed in more detail in Section 6.0 of this guidance.

> See Attachment D for a description of the waste quantity roll-up rules. Waste planning quantity data are "read-only" in IDMS. All changes to SDD (and the resulting annualized quantities in IDMS) should be made through AVS. It is currently expected that updates to AVS will be reflected weekly in IDMS.

Waste Quantity Categories/Subcategories: IDMS displays annualized life-cycle planned waste stream quantities by category and subcategory as rolled up from AVS. This field is locked and cannot be updated in IDMS. Any additions/deletions to the list of categories/subcategories or the amounts provided for each should be made through AVS. The valid list of categories/subcategories is outlined in Attachment C.

Total: For each category/subcategory, IDMS automatically calculates the FY 1998 - FY 2006, FY 2007 - FY 2070, and FY 1998 - FY 2070 quantity. There are no waste data for FY 1997 in AVS.

3.1.4 Nuclear Materials

Life-cycle nuclear material planning quantity data are requested consistent with Requirement 1041. Operations/Field Offices must provide life-cycle annualized baseline profiles for the disposition of non-classified nuclear materials in the PBS (where applicable).

> Do not provide classified nuclear material data in IDMS.

These profiles will identify the quantity of material planned for various stabilization and disposition phases at the end of each year through project completion using pre-defined categories and subcategories. This section has not been seeded because the categories and subcategories for

nuclear material have changed since the last life-cycle planning data update.

Entering Nuclear Material Data

Click on the blue "N.M." tab on the "Select Project" screen to enter/edit planning data for nuclear materials. From this data entry screen, the user will be able to enter nuclear material categories/subcategories and associated quantities for the PBS. The categories/subcategories that are used on this screen will display on the nuclear materials performance measures screen for the PBS in the budget module to enter quantities associated with budget formulation. For more information on entering nuclear materials quantities in the budget module, see Section 5.4.

When the user first selects the NM subject tab, the nuclear material baseline quantity table will be empty. To add categories/subcategories for the PBS, select the "Add" button on the bottom of the table.

Nuclear Material Category/Subcategory: IDMS will display the valid nuclear materials categories/subcategories by clicking on the "Add" button at the bottom of the table. These categories/subcategories are consistent with the valid list of performance measures for EM. The valid list of categories/subcategories for nuclear materials can be found in Attachment C. After adding a nuclear material category/subcategory, the annualized quantities should be entered and saved.

> Life-cycle data for all non-classified valid nuclear material categories and subcategories must be provided.

Total: For each performance measure, IDMS calculates the FY 1997 - FY 2006, FY 2007 - FY 2070, and FY 1997 - FY 2070 quantities when the "Save" button is selected.

3.1.5 Spent Nuclear Fuel

Planning Data for Spent Nuclear Fuel

Click on the blue "SNF" tab on the "Select Project" screen to view planning data for spent nuclear fuel. Life-cycle spent nuclear fuel (SNF) data are requested consistent with Requirement 1017. SNF data are collected in AVS, similar to SDD. The SNF data in AVS are linked to PBSs and document the life-cycle plans for the disposition of SNF (i.e., the baseline). SNF data in AVS will be used to develop disposition maps and will be rolled up using a series of rules ("recipes") to create annualized life-cycle quantity data for SNF in approved categories and subcategories. These recipes will be provided later under separate cover. For information on entering spent nuclear fuel quantities in the budget module, see Section 5.5. Categories and subcategories associated with SNF data can be found in Attachment C. Note that there are several

new SNF categories and subcategories for this update (as shown in the following table).

Table 3.1: New SNF Categories and Subcategories

Category	**Subcategory**
Spent Nuclear Fuel	Treated for Stabilization/Disposal (m3)
Spent Nuclear Fuel	Treated for Stabilization/Disposal (MTHM)
Spent Nuclear Fuel	Moved to Dry Storage (m3)
Spent Nuclear Fuel	Moved to Dry Storage (MTHM)
Spent Nuclear Fuel	Prepared and Shipped for Consolidation (m3)
Spent Nuclear Fuel	Prepared and Shipped for Consolidation (MTHM)

SNF Quantity Categories/Subcategories: IDMS displays annualized SNF life-cycle planned quantities by category and subcategory as rolled up from AVS. This field is locked and cannot be updated in IDMS. Any additions/deletions to the list of categories/ subcategories or the amounts provided for each should be made through AVS.

Total: For each performance measure, IDMS automatically calculates the FY 1997 - FY 2006, FY 2007 - FY 2070, and FY 1997 - FY 2070 quantity.

3.1.6 Release Site Cleanup

Release site data are being requested consistent with Requirements 1090 (list and description) and 1031 (status information). Operations/Field Offices must maintain a list of release sites at each geographic site and a description and status for each. All release sites should be associated with a PBS (except for those completed prior to the development of PBSs). Release site description and status information is part of the PBS baseline, where applicable, and describes the life-cycle plans for the assessment and cleanup of release sites at the geographic site. Release site assessments and completions are tracked and rolled up "counts" are used as measures of the scope of the program and progress toward EM program completion. The valid list of release site categories/ subcategories is included in Attachment C. A description of how "counts" are rolled up is included in Attachment E.

It is important to review the "RS Maintenance" tab (see Section 3.2.4) at the geographic site planning level before entering release site planning data at the PBS planning level to ensure that the correct release sites have been established for each PBS. To view/add release sites for each PBS, select the "Planning Module" icon at the bottom of the screen and choose "Geographic Site" level from the drop-down list. From the PBS planning level in IDMS, the user can enter the **planned** assessment and completion dates for each release site in addition to natural group association (if applicable), class/subclass, etc. Please note that the user

cannot add release sites at the PBS level. This must be done from the "RS-Maintenance" tab at the geographic site level in the planning module. To enter budget target dates, the user must go to the "Rel. Sites" tab in the budget module (Section 5.6).

Entering Release Site Planning Data

Click on the blue "RS Cleanup" tab on the "Select Project" screen to enter release site planning data. After selecting the "RS Cleanup" tab, a release site summary screen with seeded data from last year's *Paths to Closure* data collection and the Budget Data Template will appear. To edit or view more detailed information about each release site, click on the release site code hyperlink on the left side of each row. Some of the detailed data for release sites is from the EM-40 Core Database and has not been updated since the last update to that system. Instructions for entering release site information at the PBS level are listed below.

Code: This field displays a unique release site code for the geographic site. This field cannot be edited/updated. See Section 3.2.4 for additional information.

Group: This field displays the unique natural grouping name to which the release site belongs. This field cannot be edited on this screen. See Section 3.2.4 for additional information.

Name: This field displays the field code and the descriptive name of the release site. This field cannot be edited on this screen. See Section 3.2.4 for additional information.

Planned Assessment: Enter the year that the release site assessment is planned to be completed. An assessment should be considered complete when the preliminary assessment or assessment phase is complete and appropriate documentation has been submitted to the regulator for either a remedial action or a no action decision. Dates should be entered as a four-digit year (e.g., 2001).

Actual Assessment: This field displays the actual assessment date that has been seeded from last year's *Paths to Closure* data collection (for actual assessments completed before 1998) and the fall Budget Data Template (for actual assessments completed in 1998). An assessment should be considered complete when the preliminary assessment or assessment phase is complete and appropriate documentation has been submitted to the regulator for either a remedial action or a no action decision. Actual assessment dates cannot be edited in IDMS. New FY 1999 actual assessment completion dates will be updated during the FY 1999 execution process.

At Target Assessment: This field displays the budget target assessment date that has been entered for the release site in the budget module. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen. See Section 5.6 for further information.

Planned Completion: Enter the year that the release site completion is planned. A release site should be considered complete once the physical remediation has been finished or a no action decision rendered and the appropriate documentation has been submitted to the regulator. This should be the date in the site baseline for completing the release site. Dates should be entered as a four-digit year (e.g., 2001).

Actual Completion: This field displays the actual completion date that was seeded from last year's *Paths to Closure* data collection (for actual completions before 1998) and the fall Budget Data Template (for actual completions in 1998). A release site should be considered complete once the physical remediation has been finished or a no action decision rendered and the appropriate documentation has been submitted to the regulator. Actual completion dates cannot be edited in IDMS. New FY 1999 actual completion dates will be updated during the FY 1999 execution process. If a release site has been completed through a no action decision, the "No Further Action Determination" check box on the release site detail screen must be checked.

At Target Completion: This field displays the budget target completion date that is entered for the release site in the budget module. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen. See Section 5.6 for additional information.

Totals: IDMS will total the number of release site assessments and completions at the bottom of the release site table for the timeframes pre- FY 1997, FY 1997- FY 2006, FY 2007- FY 2070, and a Grand Total for the life cycle. Release site totals are calculated using a series of rules that are explained in Attachment E.

Update Natural Group: Click on this button to change the planned assessment and/or completion dates for a specific natural grouping. IDMS will display a drop-down list of natural groupings. New natural groupings can be added at the geographic site level in the "RS Maintenance" screen (see Section 3.2.4). Select a natural grouping and enter the assessment and completion dates for that natural grouping. Dates should be entered as a four-digit year (e.g., 2001). Click on the "Save Changes" button to change the planned assessment and completion dates for all of the release sites in the natural grouping. To return to the release site summary table without saving changes, click on the "Cancel Changes" button.

Editing Detailed Release Site Information

To edit more detailed information about a release site, click on the "Code" hyperlink. IDMS will display data entry fields such as release site name, associated PBS number, and class/subclass. Instructions for entering the detailed release site information are below.

Name: This field displays the descriptive name that uniquely identifies the release site. See Section 3.2.4 for information on how to edit this field.

Release Site Code: This field displays the unique four digit release site code. This code is generated by the system and cannot be edited.

Geographic Site: This field displays the geographic site with which the release site is associated. This information is locked and is determined by the association made in the "RS-Maintenance" tab at the geographic site level.

PBS No.: This field has been seeded with the PBS that this release site was associated with in the last *Paths to Closure* data collection. See Section 3.2.4 for information on how to edit this field.

Natural Group: The natural grouping is a Field-designated group of release sites that have similar characteristics (e.g., belong to the same operable unit or waste area group) and will be assigned the same assessment and completion date for tracking purposes. See Section 3.2.4 for information on how to edit this field.

Add Natural Group: This button enables you to add a natural group. See Section 3.2.4 for detailed instructions on how to add a natural group.

Class/Subclass: This field displays the specific class/subclass combination that describes the release site. See Section 3.2.4 for information on how to edit this field.

No Further Action Determination: Place a "✓" in this box to indicate that a No Further Action decision has been made for the release site.

Date Accepted Into the Program: In this field, enter the date that the release site was recognized by the EM program. Dates should be entered as a four-digit year (e.g., 1997).

Radioactive Site: Place a "✓" in this box to indicate that the release site has radionuclides present or suspected.

Complete Assessment: On this screen, IDMS displays assessment dates, if provided, from the budget and planning modules. See Section 3.2.4 for an explanation of actual, at target, and planned dates.

Complete Cleanup: On this screen, IDMS displays completion dates, if provided, from the budget and planning modules. See Section 3.2.4 for an explanation of actual, at target, and planned dates.

Delete Release Site: IDMS will only display the "Delete Release Site" button if the release site has an At Target Assessment and/or at Target Completion date of FY 2001 or later. Release sites that have been historically completed or were reported in the FY 2000 Congressional budget as scheduled for completion in FY 1999 or FY 2000 (in the at

target column) cannot be deleted. See Section 3.2.4 for additional information.

3.1.7 Deactivation

Facility deactivation data are being requested consistent with Requirements 1097 (list and description) and 1096 (status information). Operations/Field Offices must maintain a common list of facilities including those to be deactivated at each geographic site and a description and status for each. All facilities to be deactivated should be associated with a PBS (except for those completed prior to the development of PBSs). Description and status information on facilities to be deactivated is part of the PBS baseline, where applicable, and describes the life-cycle plans for the deactivation of facilities at the geographic site. Valid facility categories and subcategories are included in Attachment C. Facility deactivations are tracked and rolled up "counts" are used as measures of progress. A description of how "counts" are rolled up is included in Attachment E.

> In the past, EM only collected the number of facility deactivations. Now, a list with dates is required.

It is important to review the "Fac Maintenance" tab (see Section 3.2.5) at the geographic site planning level before entering facility planning data at the PBS planning level to ensure that the correct facilities have been established for each PBS and they have been correctly associated with a PBS. To view/add facilities for each PBS, select the "Planning Module" icon at the bottom of the screen and choose "Geographic Site" level from the drop-down list. From the PBS planning level in IDMS, the user can enter the planned deactivation date for each facility in addition to natural group association (if applicable), class/subclass, etc. Please note that the user cannot add facilities at the PBS planning level. To enter budget target dates, the user must go to the "Deactivation" tab in the budget module. See Section 5.7 for additional information.

Entering Facility Deactivation Planning Data

Click on the blue "Deactivation" tab on the "Select Project" screen to enter facility deactivation planning data. After selecting the "Deactivation" tab, a list of facilities that have been associated with this PBS will appear. To edit or view more detailed information about each facility, click on the facility code hyperlink to the left side of each row. Instructions for entering the facility deactivation planned dates are listed below.

Code: This field displays the unique facility code for each facility at a geographic site. This code cannot be edited/updated. See Section 3.2.5 for additional information.

Group: This field displays the unique natural grouping name to which the facility belongs. This field cannot be edited on this screen. See Section 3.2.5 for additional information.

Name: This field displays the descriptive name of the facility. This field cannot be edited on this screen. See Section 3.2.5 for additional information.

Planned Deactivation: Enter the year that the facility deactivation is planned to be completed. This should be the date in the site baseline for completing the facility deactivation. Dates should be entered as a four-digit year (e.g., 2001).

Actual Deactivation: This information has not been previously requested. New FY 1999 actual deactivation dates will be updated during the FY 1999 execution process. This is a new requirement and will be updated during the execution process.

At Target Deactivation: This field displays the budget target deactivation date that is entered for the facility in the budget module. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen. See Section 5.7 for additional information.

Totals: IDMS will total the number of facility deactivations at the bottom of the facility deactivation table for the timeframes Pre- FY 1997, FY 1997- FY 2006, FY 2007- FY 2070, and the Grand Total of all facility deactivations in each date category for the life cycle. Facility deactivation totals are calculated using a series of rules that are explained in Attachment E.

Update Natural Group: Click on this button to change the deactivation date for a specific natural grouping. IDMS will display a drop-down list of natural groupings. New natural groupings can be added at the geographic site level on the "Fac Maintenance" screen (See Section 3.2.5). Select a natural grouping and enter the deactivation date for all of the facilities in the natural grouping. Dates should be entered as a four-digit year (e.g., 2001). Click on the "Save Changes" button to change the deactivation date for all of the facilities in the natural grouping.

Editing Detailed Facility Information

To edit more detailed information about a facility, click on the "Code" hyperlink. IDMS will display data entry fields such as facility name, associated PBS number, hazard, and class/subclass. Instructions for entering the detailed facility information are below.

Name: This field displays the descriptive name that uniquely identifies the facility. See Section 3.2.5 for information on how to edit this field.

Facility Code: This field displays the unique four digit facility code. This code is generated by the system and cannot be edited.

Geographic Site: This field displays the geographic site with which the facility is associated. This information is locked and is determined by the association made in the "Fac-Maintenance" tab at the geographic site level.

Deactivation PBS No.: Identify the PBS that contains the deactivation activities for this facility. This information has not been previously requested. See Section 3.2.5 for information on how to edit this field.

Decommissioning PBS No.: This field has been seeded with the PBS that decommissioning activities for this facility were associated with in the last *Paths to Closure* data collection. See Section 3.2.5 for information on how to edit this field.

Natural Group: Natural grouping identification for a facility is optional. The natural grouping is a Field-designated group of facilities that have similar characteristics (e.g., belong to the same group of buildings or cluster) and will be assigned the same deactivation date for tracking purposes. See Section 3.2.5 for information on how to edit this field.

Add Natural Group: To add a natural grouping, select the "Add Natural Group" button at the bottom of the screen. Enter the name of the new natural grouping in the text box and click on the "Save Changes" button. This will add the natural grouping to the "Natural Group" drop-down list.

Hazard: This field displays the name of the present hazard based on EM STD 5502. To edit the hazard information, click on the drop-down list and select the appropriate hazard. See Table A-14 in Attachment A for a valid list of hazards and additional information.

> This field defaults to NF1, please review this information carefully.

Class/Subclass: This field displays the specific class/subclass combination that describes the facility. Table A-10 in Attachment A lists the valid class/subclass combinations. See Section 3.2.5 for additional information.

No Further Action Determination: Place a "✓" in this box to indicate that a No Action decision has been made for the facility.

Radioactive Facility: Place a "✓" in this box to indicate that the facility has radionuclides present or suspect.

FIMS ID: This field is designed to display the code from the Facilities Information Management System (FIMS) associated with the facility. This field has not been seeded and is not editable. It is reserved for future data updates.

Date Accepted Into the Program: In this field, enter the date that the facility was recognized by the EM program. Dates should be entered as a four-digit year (e.g., 1997).

Delete Facility: IDMS will only display the "Delete Facility" button if the facility has an At Target Decommissioning Assessment and/or At Target Decommissioning Completion date of FY 2001 or later. Facilities that have been historically completed or were reported in the FY 2000 Congressional budget as scheduled for completion in FY 1999 or FY 2000 (in the at target column) cannot be deleted. See Section 3.2.5 for additional information.

Facility Deactivation: On this screen, IDMS displays deactivation dates, if provided, from the budget and planning modules. See Section 3.2.5 for an explanation of actual, at target, and planned dates.

Facility Assessment: On this screen, IDMS displays decommissioning assessment dates, if provided, from the budget and planning modules. See Section 3.2.5 for an explanation of actual, at target, and planned dates.

Facility Decommissioning: On this screen, IDMS displays decommissioning completion dates, if provided, from the budget and planning modules. See Section 3.2.5 for an explanation of actual, at target, and planned dates.

3.1.8 Decommissioning

Facility decommissioning data are being requested consistent with Requirements 1097 (list and description) and 1096 (status information). Operations/Field Offices must maintain a common list of facilities including those to be decommissioned at each geographic site and a description and status for each. All facilities to be decommissioned should be associated with a PBS (except for those completed prior to the development of PBSs). Description and status information on facilities to be decommissioned is part of the PBS baseline, where applicable, and describes the life-cycle plans for the decommissioning of facilities at the

geographic site. Attachment C contains the valid list of facilities decommissioning categories/subcategories. Facility decommissioning assessments and completions are used as measures of progress in the EM. A description of how "counts" are rolled up is included in Attachment E.

It is important to review the "Fac Maintenance" tab (see Section 3.2.5) at the geographic site planning level before entering facility planning data for at the PBS planning level to ensure that the correct facilities have been established for each PBS. To view/add facilities for each PBS, select the "Planning Module" icon at the bottom of the screen and choose "Geographic Site" level from the drop-down list. From the PBS planning level in IDMS, the user can enter the planned decommissioning assessment and completion date for each facility in addition to natural group association (if applicable), class/subclass, etc. Please note that the user cannot add facilities at the PBS planning level. This is done from the "Fac-Maintenance" screen at the geographic site level. To enter budget target dates, the user must go to the "Decommissioning" tab in the budget module. See Section 5.8 for additional information.

Entering Facility Decommissioning Planned Assessment and Completion Data

Click on the blue "Decommissioning" tab on the "Select Project" screen to enter facility decommissioning planning data. After selecting the "Decommissioning" tab, a list of facilities will appear on the screen that is seeded with decommissioning data from last year's *Paths to Closure* data collection. To edit or view more detailed information about each facility, click on the facility code hyperlink to the left side of each row. Instructions for entering the facility decommissioning planned assessment and completion dates are listed below.

Code: This field displays the unique facility code for the geographic site. This code cannot be edited/updated. See Section 3.2.5 for additional information.

Group: This field displays the unique natural grouping name to which the facility belongs. This field cannot be edited on this screen. See Section 3.2.5 for additional information.

Name: This field displays the descriptive name of the facility. This field cannot be edited on this screen. See Section 3.2.5 for additional information.

Planned Assessment: Enter the year that the facility decommissioning assessment is planned to be completed. This should be the date in the site baseline for completing the facility decommissioning assessment. Dates should be entered as a four-digit year (e.g.; 2001).

Actual Assessment: This field displays the actual decommissioning date that has been seeded from last year's *Paths to Closure* data collection (for actual decommissioning assessments completed before 1998 and the

fall budget Data Template (for actual decommissioning assessments completed in 1998). An assessment should be considered complete when the facility has been characterized for decommissioning or no action response completed and the appropriate documentation has been submitted to the regulator. Actual decommissioning assessment dates cannot be edited in IDMS. New FY 1999 actual decommissioning assessment dates will be updated during the FY 1999 execution process at mid year.

At Target Assessment: This field displays the budget target decommissioning assessment date that is entered for the facility in the budget module. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen. See Section 5.8 for additional information.

Planned Completion: Enter the year that the facility decommissioning completion is planned. This should be the date in the site baseline for completing the facility decommissioning. Dates should be entered as a four-digit year (e.g.; 2001).

Actual Completion: This field displays the actual decommissioning date that has been seeded from last year's *Paths to Closure* data collection (for actual decommissioning completed before 1998 and the fall budget Data Template (for actual decommissioning completed in 1998). A facility should be considered complete once the physical decommissioning activities have been completed or no action response completed and the appropriate documentation has been submitted to the regulator. Actual decommissioning completion dates cannot be edited in IDMS. New FY 1999 actual decommissioning completion dates will be updated during the FY 1999 execution process.

At Target Completion: This field displays the budget target decommissioning completion date that is entered for the facility in the budget module. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen. See Section 5.8 for additional information.

Totals: IDMS will total the number of facility decommissioning assessments and completions at the bottom of the facility deactivation table for the timeframes Pre- FY 1997, FY 1997- FY 2006, FY 2007- FY 2070, and the Grand Total of all facility decommissioning assessments and completions in each date category for the life cycle. Facility decommissioning assessment and completion totals are calculated using a series of rules that are explained in Attachment E.

Update Natural Group: Click on this button to change the decommissioning assessment and/or completion date for a specific natural grouping. IDMS will display a drop-down list of natural groupings. New natural groupings can be added at the geographic site

level on the "Fac Maintenance" screen. Select a natural grouping and enter the assessment and completion dates for all of the facilities in the natural grouping. Dates should be entered as a four-digit year (e.g., 2001). Click on the "Save Changes" button to change the planned assessment and completion dates for all of the facilities in the natural grouping.

Editing Detailed Facility Information

To edit more detailed information about a facility, click on the "Code" hyperlink. IDMS will display data entry fields such as facility name, associated PBS number, hazard, and class/subclass. See Section 3.1.7 (above) for detailed information about these fields.

3.1.9 Milestones

At a minimum, the following categories of milestones are collected in IDMS:

- Enforceable Agreement
- DNFSB Commitment
- Management Commitment for FY 1999
- Major Decision Point
- Intersite Implications
- Project Critical Decision
- Critical Closure Path

All milestones for the **life cycle** of each PBS that meet any one of these categories must be in IDMS.

This universe of milestones is consistent with Requirement 1033. Definitions for each milestone category can be found later in this section. In addition, all PBSs must have a PBS start and a PBS end milestone.

Milestone information is used extensively at a National level for reporting and analysis. They are key performance indicators used for program management, enforceable agreement tracking, Management Commitments, and in the Secretary's Performance Agreement with the President. From this screen and the Milestone- Edit screen, the user can edit the baseline milestone completion date, the legal completion date, milestone driver categories, critical closure path programmatic risk scores, and add or cancel milestones from the PBS.

Entering Baseline and Legal Completion Data for Milestones

Click on the blue "Milestones" tab on the "Select Project" screen to enter milestone data. After selecting the "Milestone" tab, a list of project milestones will be displayed. The project milestone summary sheet provides a list of all the milestones for the project as seeded from

the December, 1998 PTS (Progress Tracking System) submittal (submitted in January of 1999.) If the milestones were not in PTS at that time, they are not seeded. By clicking on/selecting the milestone ID, the user may update the milestone details on the Milestone- Edit screen. To add a milestone to the project, select the "Add a Milestone" button on the bottom of the milestone summary sheet. Data should be entered as follows:

ID: This field contains the number that identifies each unique milestone for the project. This field is generated by IDMS and is locked. To edit or view more detailed information about a milestone, click on the milestone "ID" hyperlink and IDMS will link to the Milestone-Edit screen. The Milestone-Edit screen is discussed below under the heading "Editing/Viewing a Milestone".

Name: This field displays a descriptive name for each milestone. This field is locked on this screen but may be edited on the Milestone- Edit screen.

EA: This box displays a "Y" if the milestone is an enforceable agreement (EA) milestone. An EA milestone is a milestone that is required by a regulatory agreement. To edit this information, click on/select the milestone ID hyperlink and IDMS will display the Milestone- Edit screen from which the user may update this and other information.

Original: This field displays the completion date at milestone inception. In IDMS, this field will be seeded with the original date provided in the 1998 *Paths to Closure* database (if applicable) and cannot be updated. Dates should be entered in the MM/DD/YYYY format.

Baseline: Enter the completion date for the milestone from the latest approved Field project baseline. This is the "planned" completion date for the milestone. This field is required for all milestones entered into IDMS. Dates should be entered in the MM/DD/YYYY format.

Legal: If the milestone is an EA milestone, enter the milestone completion date as explicitly stated in the associated enforceable agreement. This field is required for all EA milestones entered into IDMS. Dates should be entered in the MM/DD/YYYY format.

Actual: This field displays the actual completion date if the milestone has been completed. This field cannot currently be updated in IDMS.

Forecast: This field displays the most current completion date that is expected for the milestone. Operations/Field Offices provide a forecast completion date for a milestone when the completion date will vary from what is in the baseline. This field cannot be updated in IDMS.

EA: IDMS calculates the total number of EA milestones reported for the PBS. Note that totals do not include canceled milestones.

DNFSB: IDMS calculates the total number of DNFSB milestones reported for the PBS. Note that totals do not include canceled milestones.

CCP: IDMS calculates the total number of Critical Closure Path (CCP) Milestones reported for the PBS. Note that totals do not include canceled milestones.

Grand Total: IDMS calculates the total number of milestones reported for the PBS. Note that totals do not include canceled milestones.

Add: Select the "Add" button to enter a new milestone for the PBS. IDMS will provide an empty detailed milestone information screen. For instructions on completing the data entry fields, refer to the "Editing/Viewing a Milestone" section below.

Editing/Viewing Milestone Information

Click on the milestone "ID" hyperlink to edit/view detailed milestone information, or click on the gray "Add" button to add a milestone. The following list provides detailed instructions on entering milestone information.

Canceled: Select this box to indicate that the milestone has been canceled. The system will not delete canceled milestones, but the Operations/Field Office will not be required to update any information for canceled milestones. To indicate that the milestone has been canceled, the milestone name will appear red on the Milestone screen.

Milestone Name: This field displays the descriptive name of the milestone. To edit the milestone name, click inside the text box. The milestone name should not be longer than 100 characters.

Milestone Description: This field provides a more detailed description of the milestone if the name is insufficient. Entering data into this field is optional. To edit this narrative, click inside the narrative field. This field is not limited in length, but please keep the description succinct.

Milestone Code: This field displays the unique code designated by the Operations/Field Office for each milestone. This code links milestones between the EM Corporate Database and Operations/Field Office systems.

Milestone Status: This field contains a drop-down list of the milestone status. The milestone status will either be "Active" or blank.

PBS No: This field displays the PBS number with which the milestone is associated. All milestones must be associated with a PBS. To change

the PBS that the milestone is associated with, select the correct PBS number from the pull-down menu.

Reg. Agreement: From the pull-down menu, select the regulatory agreement that drives the milestone, if applicable. This list has been seeded with the list of regulatory agreements provided in PTS. The list of regulatory agreements may be updated at the site summary level (SSL) in IDMS. This field must be completed if the milestone is an enforceable agreement milestone.

Dates

Original: This field displays the completion date at milestone inception. In IDMS, this field will be seeded with the original date provided in the 1998 *Paths to Closure* database (if applicable) and cannot be updated.

Baseline: Enter the completion date for the milestone from the latest approved Field project baseline. This is the "planned" completion date for the milestone. This field is required for all milestones entered into IDMS. Dates should be entered in the MM/DD/YYYY format.

Legal: If the milestone is an EA milestone, enter the milestone completion date as explicitly stated in the associated enforceable agreement. This field is required for all EA milestones entered into IDMS. Dates should be entered in the MM/DD/YYYY format.

Forecast: This field displays the most current completion date that is expected for the milestone. Operations/Field Offices should provide a forecast completion date for a milestone if the completion date varies from what is in the baseline. This field cannot currently be updated in IDMS.

Actual: This field displays the actual completion date if the milestones has been completed. This field cannot currently be updated in IDMS. For FY 1999, updates to milestone actual dates will be done quarterly through the PTS.

Programmatic Risk Scores

The following fields only apply to **critical closure path milestones**:

Technical Risk: Critical closure path milestones must have technological programmatic risk scores. For those milestones that are on the critical closure path, select from the pull-down list the technological risk score (1-5) for the milestone. Please refer to Tables A-26 and A-27 of Attachment A for programmatic risk score definitions, or click on the hyperlink.

Scope Related Risk: Each critical closure path milestone must have a scope-related programmatic risk score. For those milestones that are on the critical closure path, select from the pull-down list the scope-related programmatic risk score (1-5) for the milestone. Please refer to Tables

A-26 and A-27 of Attachment A for programmatic risk score definitions, or click on the hyperlink.

Intersite Risk: Each critical closure path milestone must have an intersite programmatic risk score. For those milestones that are on the critical closure path, select from the pull-down list, the intersite programmatic risk score (1-5) for the milestone. Please refer to the Tables A-26 and A-27 of Attachment A for programmatic risk score definitions, or click on the hyperlink.

Milestone Categories

Milestones that meet the definition of any of the following categories over the life cycle of the PBS must be included in the milestone table:

Critical Closure Path: Click on/select this box if the milestone is on the critical closure path. The critical closure path milestones must occur "on schedule" to achieve the site closure date. The critical closure path is a streamlined schedule of high level activities, events, and/or decisions that warrant DOE management attention. If the milestone is on the critical closure path, then the user must provide technical, scope, and intersite programmatic risk scores for the milestone as discussed above. For an critical closure path milestone with a technical risk greater than 1, the associated Site Need must be selected on the "Tech Needs" tab. Programmatic risk scores do not need to be provided for other milestones.

DNFSB Milestone: Select this box to indicate that the milestone is required by a Defense Nuclear Facilities Safety Board recommendation.

Project Critical: Select this box to indicate that the milestone is tracked as a critical decision in accordance with Departmental requirements for strategic systems and line item construction projects (i.e., Level 0 or 1).

Mission Completion: Select this box to indicate that the milestone is a project completion milestone. A project completion milestone indicates that the scope of the project has satisfied the definition of complete as outlined in the "12/21/98 Guidance".

Project Start: Select this box to indicate if the milestone is the project start milestone. Each PBS must have a project start milestone.

Decision Point: Select this box to indicate that the milestone is tracked as a key decision point for the project (e.g., ROD, NEPA EIS, etc.). Key decision point milestones should have broad implications for the scope, cost, and schedule of the project.

Enforceable Agreement Milestone: Select this box to indicate an enforceable agreement (EA) milestone. An enforceable agreement milestone is required by an enforceable agreement at the Operations/Field Office. If the milestone is an EA, then it must have an

unique agreement ID associated with it on the Reg. Agreement pull-down list. In addition, if the milestone is an EA, the legally-required completion date must be entered into the Legal Date field on this screen.

Project End: Select this box to indicate if the milestone is the project end milestone. The project end milestone indicates the last year of funding for the project. Each PBS must have a project end milestone.

Intersite Milestone: Select this box to indicate that the milestone carriers intersite implications that could affect other sites' schedules.

FY 1999 Management Commitment: This field indicates (Yes/No) that the milestone is a Management Commitment for FY 1999. Management Commitments are developed through discussions with EM-1 and Field Managers. This field is locked to reflect final FY 1999 Management Commitments.

3.1.10 Deployments

This section identifies the technologies that will be deployed as part of this PBS or that the PBS Manager is seriously considering for use. The fields have been seeded with deployment data based on Fiscal Year 1998 *Paths to Closure* Field Office submittals (i.e., ODS Part C, Table O.9.1) and with deployments reported for the Corporate Performance Measures. The seeded data from Table O.9.1 include additions, corrections, and deletions, as appropriate, by the Office of Science and Technology (OST) Focus Areas. Absence of deployment data for this PBS indicates that there was no information on new or innovative technology deployments in previous submittals and updates and appropriate entries must be made at this time. This section is consistent with Requirements 1008 and 1020.

Entering Technology Deployment Information

Click on the blue "Deployments" tab to modify, delete, or add to the seeded technology deployments. If technology deployments do not currently exist for the PBS, or a new technology needs to be added, click on the gray "Add" button at the bottom of the table. The following fields appear on the screen when you click "Add":

Select Group: In this field, select the Focus Area Work Package or other group (EM-30 technologies, or non-EM-50 technologies) with which the technology is identified. This field is used to narrow down the choices in the "Select Technology" pick list on the same screen.

Select Technology: From the pick list, select the technology to be deployed. If the technology that you would like to add is not on the "Select Technology" pick list, type the name of that technology in the space provided at the bottom of the table. Click on the gray "Add" button to add the technology. Repeat this process until all desired

technologies have been added. You will be returned to the main deployments screen, where the following information should be completed:

Technology ID No.: This field displays the unique technology key associated with the technology selected. This number matches the reference number used in the Technology Management System and cannot be updated in IDMS. Numbers below 5000 are OST Technologies and numbers above 5000 are non-OST Technologies.

Planned: The PBS Manager must correct the seeded date as appropriate. The Fiscal Year in which the technology will most likely be deployed should be entered. Dates only need to be entered through 2010. Dates are entered as a four-digit year (e.g., 2002).

Actual: This field displays the actual deployment date, if available. This information cannot be updated in IDMS, but will be tracked through EM's execution process. Dates are displayed as a four-digit year (e.g., 2002).

Forecast (At Target): This field displays the budget target deployment date that is entered for the technology in the budget module. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen. See Section 5.9 for additional information.

Status: Select "Potential Deployment" or "Deployment Commitment" from the drop-down list to indicate the level of commitment from the PBS manager. "Deployment Commitment" should be entered if the PBS Manager has a written plan such as a Record of Decision (ROD) to deploy the technology. "Potential Deployment" should be entered if the PBS Manager is considering use of the technology, but has not made a final decision.

If "Deployment Commitment" is entered in this field and the forecast (at target) deployment date is either FY 1999 or FY 2000, the technology will be automatically counted toward the Field Office Manager's corporate performance measure for technology deployment. The performance metrics are based on a numerical count of technologies only.

Totals: This field calculates the total planning, actual and forecast (at target) deployments for Pre-97, 1997-2006, 2007-2070, and total based on the planned, actual, and forecast (at target) dates shown for deployments in the deployments list.

3.1.11 PBS Reconciliation

One of the major components of the 1999 *Paths to Closure* document will be the explanation of any changes from last year's PBS baseline to the current baseline. In this tab, Operations/Field Offices are required to enter data to reconcile any differences between last year's PBS baseline and this year's PBS baseline consistent with Requirement 1026.

Entering Annual PBS Reconciliation Data

Click on the blue "Reconciliation" tab on the "Select Project" screen to enter annual PBS reconciliation data. The following data are displayed:

Previous Projected Completion Date: This field displays the planned project completion date that was submitted in the 1998 version of *Paths to Closure*. This field cannot be edited in IDMS.

Current Projected Completion Date: This field displays the "Baseline" date of the milestone designated as the "Project End" milestone on the "Milestone" tab. This is the current planned project completion date. To change this date, you must go to the "Milestone" tab and edit the project completion milestone.

Explanation of Difference (if applicable): Enter a brief explanation of the difference in the projected completion date for the PBS submitted in FY 1998 and the current projected completion date for the PBS. If there is no difference, this field can be left blank.

The following fields are used to reconcile any difference in the PBS cost estimates from last year to this year:

Last Year's Life-cycle Estimate (1997-2070) (1998 Dollars): This field displays the EM life-cycle cost estimate (1997-2070) for the PBS that was used in the 1998 version of *Paths to Closure* in thousands of constant 1998 dollars. This field has been seeded and locked.

1997 Actual Cost: This field displays the 1997 PBS actual cost entered on the PBS cost screen (see Section 3.1.2 for more information). The data in this field cannot be changed on this screen.

1998 Actual Cost: This field displays the1998 PBS actual cost entered on the PBS cost screen (see Section 3.1.2 for more information). The data in this field cannot be changed on this screen.

Last Year's Life-cycle Estimate (1999-2070) (1998 Dollars): IDMS calculates last year's 1999-2070 EM cost estimate for the PBS in thousands of constant 1998 dollars by subtracting the FY 1997 and FY 1998 costs above from last year's estimate above. This field contains the estimate that will be escalated to 1999 dollars and compared to the

current PBS life-cycle cost estimate for reconciliation purposes. This field is locked.

Last Year's 1999-2070 Estimate in 1999 Dollars (Using a 2.7% Factor): This field displays last year's 1999-2070 EM cost for the PBS in constant 1999 dollars using the assumed inflation adjustment of 2.7% to convert from constant 1998 dollars. It is the difference between this value and this year's EM cost estimate (1999-2070) for the PBS that should be reconciled in the fields below. This difference is displayed in the "Additional Amount to Reconcile" field for reference.

The following fields are to be used to reconcile the difference between last year's and this year's EM cost estimates (both 1999-2070 in constant 1999 dollars) for the PBS. The "goal" is to add to and subtract from last year's estimate using these fields to arrive at this year's estimate (i.e., reducing the "Additional Amount to Reconcile" field to zero).

> All costs entered into the fields below should be entered as positive values.

Scope Deletion: Enter any life-cycle PBS cost that has been eliminated since last year's life-cycle estimate because scope has been taken out of the PBS baseline. The dollar amount entered into the "Scope Deletion" field will be SUBTRACTED from "Last Year's 1999 to 2070 Estimate in 1999 Dollars." Scope deletion should be entered in thousands of constant 1999 dollars.

Scope Deletion-- Enter Description: Select this hyperlink to go to a narrative field to enter a brief description of any scope that was deleted from the PBS since the 1998 life-cycle planning data submittal. Specify if scope was either transferred to another PBS or eliminated entirely. If scope was transferred, please indicate the PBS the scope was transferred to. This field is limited to 100 characters.

Efficiencies: Enter any life-cycle PBS cost reduction from last year's life-cycle estimate associated with efficiencies. Efficiencies are defined as cost savings achieved for the PBS without changing the end objectives for the PBS. The dollar amount entered into the "Efficiencies" field will be SUBTRACTED from "Last Year's 1999 to 2070 Estimate in 1999 Dollars." Efficiencies should be entered in thousands of constant 1999 dollars.

Efficiencies-- Enter Description: Select this hyperlink to go to a narrative field to provide a brief description of efficiencies achieved on the project since the 1998 life-cycle planning data submittal. The efficiencies may represent enhanced performance from acceleration,

reduced overhead, or other factors. This field is limited to 100 characters.

New Scope: Enter any additional costs for the PBS since last year's life-cycle estimate that can be attributed to new scope or scope transferred from other PBSs. The dollar amount entered into the "New Scope" field will be ADDED to "Last Year's 1999 to 2070 Estimate in 1999 Dollars." New scope should be entered in thousands of constant 1999 dollars.

New Scope-- Enter Description: Select this hyperlink to go to a narrative field to provide a brief description of any new scope included in the project since the 1998 life-cycle planning data submittal. Specify if scope was either transferred from another PBS or is entirely new. If scope was transferred, please indicate the PBS from which the scope was transferred. This field is limited to 100 characters.

Cost Growth: Enter any increased/estimated costs for the PBS that are associated with the same scope reported in 1998 (e.g., cost associated with schedule delays). The dollar amount entered into the "Cost Growth" field will be ADDED to "Last Year's 1999 to 2070 Estimate in 1999 Dollars." Cost growth should be entered in thousands of constant 1999 dollars.

Cost Growth-- Enter Description: Select this hyperlink to go to a narrative field to enter a brief description of the factors that increased the cost of the same project scope since the 1998 life-cycle planning data submittal. This field is limited to 100 characters.

Science & Technology: Enter any PBS cost reduction from last year's life-cycle estimate attributed to the application of new technologies. The dollar amount entered into the "Science and Technology" field will be SUBTRACTED from "Last Year's 1999 to 2070 Estimate in 1999 Dollars." The amount in this field should be entered in thousands of constant 1999 dollars.

PBS life-cycle cost reduction attributed to science and technology can result from revised estimates for technologies already deployed, new estimates for technologies inserted into the baseline in FY 1998, and modifications made to the technical approach. In some cases, life-cycle cost reduction from science and technology will be offset by other aspects such as new scope or cost growth.

Science & Technology– Enter Description: Select this hyperlink to go to a narrative field to briefly describe any new science or technologies that have resulted in efficiencies for the PBS. This field is limited to 100 characters.

Subtotal-Last Years Adjusted 1999 - 2070 Estimate (1999 Dollars) Plus or Minus Identified Differences: IDMS calculates the adjusted cost estimate from last year that will be compared to this year's PBS estimate by subtracting the costs associated with scope deletions, efficiencies, and application of science and technology and then adding the costs associated with new scope and cost growth to the number in the "Additional Amount to Reconcile" field. This field should be equal to the current PBS lifecycle estimate ("This Year's 1999 - 2070 Estimate") except for any other differences explained in the field below.

Additional Amount to Reconcile (Should be Zero): This field will display the remaining difference in cost (in thousands of constant 1999 dollars) between last year's 1999 - 2070 estimate adjusted to 1999 dollars, which is contained in the "Subtotal" field described above, and this year's 1999 - 2070 estimate. This field could be an addition or a subtraction from last year's total. This field should be zero, but may be required to make last year's estimated match this years estimate.

Additional Amount to Reconcile (Should be Zero)– Enter Description: Select this hyperlink to enter a brief description of other adjustments that cannot be explained by any of the above categories. This field is limited to 100 characters.

This Year's 1999-2070 Estimate (1999 Dollars): This field displays the 1999-2070 EM PBS cost estimate total in constant 1999 dollars that is entered on the PBS cost screen. This field cannot be edited on this screen. To make changes to the PBS cost estimates, return to the PBS cost screen in the planning module.

3.1.12 Technology Needs

This Technology Needs section replaces the Fiscal Year 1998 *Paths to Closure* ODS Part C, Science and Technology Tables O.9.2 and O.9.3, and adds a requirement to enter the Focus Area Work Package number, when known, that is addressing the need. The information provided in this section will be used to formulate and prioritize the Office of Science and Technology (OST) budget. This section is consistent with Requirements 1020 and 1088.

Entering Technology Needs Information

Click the blue "Tech. Needs" tab on the "Select Project" screen to enter technology needs planning data. From this screen, the user can associate technologies with the PBS, identify the benefit of the technology, link technologies to critical closure path milestones, and indicate project manager agreement with the need for the PBS.

ID: This field displays the unique identification number that IDMS assigns for each need at the site. The ID number is a database reference number that refers to the Site Need to Work Package relationship. The

hyperlink on the number in this field accesses detailed information specific to the need/focus area work package.

Site Need: Site Needs, gathered in November - December 1998 and identified for FY 1999, have been seeded for data-entry convenience. Absence of a Site Need indicates no known Site Needs were associated with the PBS last year (i.e., FY 1998), and appropriate entries should be selected at this time. A pick list was developed using data attributes from the Needs Management System (NMS). This information was provided and coordinated by each Site through the Site Technology Coordination Groups (STCGs). A list of the STCG Points of Contact is included as Attachment G.

> The pick list automatically defaults to the first Site Need on the list, so be sure to review this field for accuracy.

PBS Managers must coordinate with their CIO Point of Contact and STCG representative in identifying new Site Needs not on the pick list. New Site Needs should be entered into the NMS system, which will be used to generate an updated pick list of Site Needs in IDMS on Monday, March 15, 1999. In developing new Site Needs, the Sites should also provide the supporting information on their respective Site web page.

The NMS includes selected attributes from the Site Needs Statement which are used in OST's decision-making processes. NMS also includes proposed activities by the Focus Areas to respond to Site Needs and may be useful to the PBS Manager in better understanding the Focus Area Work Package.

Focus Area Work Package: The Office of Science and Technology (OST) technical responses to Site Needs are structured as Focus Area Work Packages and have been seeded in this section based on Focus Area input. If no Work Packages are indicated for a PBS, appropriate Work Packages, if any, must be added at this time. A pick list is provided with a complete list of Work Package numbers and titles. For technologies not developed by OST (e.g., other EM or DOE Programs or commercially developed technologies), a non-OST technical response choice can be selected from the pick list.

> The pick list automatically defaults to the first Focus Area Work Package on the list, so be sure to review this field for accuracy.

Updates to Needs and Work Packages entered in the Analysis and Visualization System (AVS) will be periodically posted to the PBS. Data

from AVS can only be changed in AVS. A list of Focus Area Points of Contact is included as Attachment H.

Technology Benefit: This field provides a pick list with the following options: "Cost," "Risk Reduction," or "Both." "Both" should be selected if the technology provides both cost savings and risk reduction. If "Cost" or "Both" is selected, the PBS Manager must enter a potential life-cycle cost savings estimate. The field is locked on this screen and can be edited by selecting the "ID" hyperlink and choosing the appropriate technology benefit from the drop-down list.

Agree?: In this data field, there are two options: "Yes" or "No". The PBS Manager should select "Yes" if the seeded Focus Area Work Package either **supports or partially supports** the resolution of the technology need. Selecting "Yes" does not commit the PBS Manager to using or deploying any technologies or technology systems mentioned in the Work Package. By selecting "Yes", the PBS Manager is only agreeing that (1) there is a reasonable potential that the Work Package may apply to the Site Need and that (2) the technology under development may be responsive to the requirements of that Site Need.

The PBS Manager should select "No" if the Focus Area Work Package listed **does not appear to support** the resolution of the technology need. If a Site Need applies to a PBS, but no Focus Area or other non-OST-funded technologies are currently identified to support that need, the appropriate Site Need number should be entered and the Focus Area Work Package field should be blank. The field is locked on this screen and can be edited by selecting the "ID" hyperlink.

Adding a Technology to the Technology Needs Table

Click on the "Add" button at the bottom of the main "Technology Needs" table to add a technology to this table. The next screen enables user to enter detailed technology information as described below.

Entering Detailed Technology Information

Click on the "ID" hyperlink to enter detailed technology information including technology cost savings information. The first table on the screen enables the user to edit the "Technology Benefit" and "Agree?" fields described above. In addition, the user can link technologies to critical closure path milestones in this table. The second table on this screen enables the user to enter technology cost savings information.

Critical Closure Path Association: This field enables the user to associate technology needs to critical closure path (CCP) milestones, if applicable. From the pick list, choose the CCP milestone to which this technology applies. The pick list displays all milestones that were determined to be critical closure path milestones on the "Milestone" tab in the planning module. If there are no items in this list or you need to add additional critical closure path milestones, you must go to the "Milestone" tab and identify additional milestones as critical closure path milestones.

Technology Cost Savings Code: This field displays the unique identification number that IDMS assigns for each technology cost savings benefit. The ID number is a database reference number. The hyperlink on the number in this field accesses detailed technology cost savings information.

Technology: This field displays the technology identification number and name. The field is locked on this screen and can be edited by selecting the hyperlink on the cost savings "Code" and choosing the appropriate cost savings technology from the drop-down list.

Cost Savings: The objective of this data field is to help prioritize Focus Area Work Packages. It has no effect on the PBS budget, and there is no linkage between the potential cost savings of Work Package-related technologies in this data field and any PBS budget decisions. If the respective technical response offers a costs savings benefit, the PBS Manager must enter the best estimate of potential life-cycle cost savings for each Work Package technology that applies to this PBS. The field is locked on this screen and can be edited by selecting the hyperlink on the cost savings "Code" and entering the appropriate cost savings.

It is sufficient to round off estimates <$10 million, <$100 million, or >$100 million, respectively, to the nearest $1, $10, or $100 million. Recall that all dollar amounts in the *Paths to Closure* are entered in thousands of dollars (e.g., $30,000,000 is entered as $30,000) and this approach must be followed here.

> Cost savings should be in constant 1999 dollars.

Range of Estimate: This field assigns a RANGE of the documented cost savings estimate assuming the technology is ultimately deployed, not assurance that it will be deployed. This field provides a pick list including "High," "Medium,""Low," or "Unknown." In general, "High" means higher confidence in the savings estimate and is associated with a NARROWER RANGE than with "Medium." "Low" means a lower confidence in the savings estimate and is associated with a WIDER RANGE than with "Medium." :Unknown" means the range has not been documented.

"High" should be assigned when the most likely range in the savings estimate (entered in the previous field) is thought to be up to twice to one half the estimated savings value (i.e., 2n>n>0.5n). Using the $30,000,000 dollar figure above, this range would be $60,000,000 to $15,000,000.

"Medium" should be assigned when the most likely range in the savings estimate is thought to be up to three times to one third the estimated

savings value (i.e., 3n>n>0.33n). Using the $30,000,000 dollar figure above, this range would be $90,000,000 to $10,000,000.

"Low" should be assigned when the most likely range in the savings estimate is very wide, or wider than the range for Medium.

"Unknown" should be assigned when the range of estimate has not been documented. Low and undocumented cost savings estimates will not be included in the OST prioritization of the Focus Area Work Packages.

Adding a Technology to the Technology Cost Savings Table

Click on the "Add" button at the bottom of the "Technology Cost Savings" table to add a technology to this table. The next screen enables user to enter a technology "Group," "Technology," "Cost Savings," and "Range of Estimate" as described above.

Please note that when "New Technology" is selected from the "Group" pick list, the associated "Technology" pick list is populated from new technologies that were entered in the "Deployments" tab in the planning module. (See Section 3.1.10 for additional information.) If no new technologies were entered in the "Deployments" tab, than no options will appear in the "Technology" pick list.

3.2 Geographic Site Level

From the "Choose a Planning Level" screen, select "Geographic Site" from the pull-down list to enter/view geographic site level data. This will bring you to the "Select Geographic Site" screen where the user should choose from the valid list of geographic sites for the Operations/Field Office. The list of geographic sites for an Operations/Field Office is controlled by Headquarters. This list is under change control and requires a formal request to the EM CIO to be changed. Once the geographic site is selected, IDMS will display subject tabs that link to various data entry screens. Below is a description of each subject tab and instructions for entering data.

3.2.1 General Information

Entering Completion Date and End State Information

Click on the blue "Gen. Info." tab on the "Select Geographic Site" screen to enter general geographic site information. Information on this tab includes geographic site completion date, end state narratives, and waste management responsibility transfer dates. Site completion date information is requested consistent with Requirement 1051. End State information is requested consistent with Requirement 1073. Future Use information is requested consistent with Requirement 1075.

Completion of Geographic Site is Planned For: In this field, enter the planned date in the site's baseline when all EM activities are considered complete. Enter this date as a four-digit year (e.g., 2002). Geographic

site completion date is a key EM performance measure. EM assumes a site is "complete" when:

- Deactivation and decommissioning of all facilities currently in the program have been completed, excluding any long-term surveillance and monitoring (LTS&M),
- All releases to the environment have been cleaned up in accordance with agreed upon cleanup standards,
- Groundwater contamination has been contained, or long-term treatment or monitoring is in place,
- Nuclear material and spent fuel have been stabilized and/or placed in safe long-term storage, and
- "Legacy" waste (i.e., waste produced by past nuclear weapons production activities, with the exception of high-level waste) has been disposed of in an approved manner.

Transfer of Waste Management is Planned For: In this field, enter the planned date in the site's baseline when waste management responsibility for newly generated, non-EM waste will transfer from EM to the generating program. In other words, it should display the first year that the non-EM organization has responsibility. Enter this date as a four-digit year (e.g., 2002). For a more detailed explanation of this policy, refer to page 5-3 of the "12/21/98 Guidance".

Actual Date of Geographic Site Completion: This field contains the actual date of geographic site completion, if applicable. This field cannot be edited in IDMS. This field will be populated from the valid geographic site completion list maintained at Headquarters.

Actual Date of Waste Management Transfer: This field contains the actual date that responsibility for newly generated, non-EM waste was transferred to the generating program. This field cannot be edited in IDMS.

Description of the Site End-State: In this field, enter a narrative to discuss the planning end state for the geographic site. In this narrative field, describe the site-wide land use assumptions (e.g., open space, industrial/commercial, residential) currently guiding project completion standards, and how these assumptions were generated. Focus broadly on the status of land, water, facilities, and engineered units at the site after EM mission completion. State whether there is a site future land-use agreement, or if one is planned, and the process to reach a consensus on future land uses. If EM does not own the site, define the range of land-use decision possibilities that will be afforded by the EM cleanup strategy. This field has been seeded with stewardship narratives collected in Fall, 1998 as part of the Stewardship survey.

Description of Deed Controls: In this field, enter a narrative to describe planned or likely deed restrictions or institutional controls for the geographic site **after** EM mission completion. This information has been seeded, where available, with stewardship narratives collected in Fall, 1998 as part of the Stewardship survey and is consistent with Requirement 1073.

Future Use: In this narrative field, discuss the planned future use for the geographic site. This narrative should include a discussion of the planned cleanup level at the site. This information is consistent with Requirement 1075.

This field has been seeded with stewardship narratives collected in Fall, 1998 as part of the Stewardship survey.

3.2.2 Stewardship

Entering Geographic Site Stewardship Information

Click on the blue "Stewardship" tab on the "Select Geographic Site" screen to enter stewardship data for the geographic site. "Stewardship" is defined as the work required at a geographic site after cleanup is "complete," including monitoring of residual contamination, and maintenance of closed landfills, capped sites, and entombed buildings/reactors. In many cases, these activities are required as part of the remedies selected. These stewardship activities encompass all actions required to maintain an adequate level of protection to human health and the environment posed by residual contamination.

Annual LTS&M Cost (000's 1999$): This field contains the estimated annual long term surveillance and monitoring (LTS&M) costs at the site in thousands of constant 1999 dollars after site completion. This field has been seeded with stewardship data collected in Fall, 1998 as part of the Stewardship survey and is consistent with Requirement 1077.

Year Stewardship Activity Started: This field contains the start date of any stewardship activities required after the EM site end state has been reached. Dates will be displayed as a four-digit year. This field has been seeded with stewardship data collected in Fall, 1998 as part of the Stewardship survey and is consistent with Requirement 1077.

Ongoing Mission?: Select "Yes" or "No" to indicate that the site has an ongoing DOE mission. This field has been seeded with stewardship data collected in Fall, 1998 as part of the Stewardship survey and is consistent with Requirement 1074.

Post-EM Mission Landlord: This field identifies the likely site landlord after EM mission completion. Landlord information is consistent with Requirement 1074. Select the appropriate site landlord from the drop-down list provided. Table A-24 in Attachment A shows

the valid list for the site landlord.[1] The stewardship landlord field has been seeded with information collected in the Fall 1998 Stewardship data collection survey.

Funding Organization: In this field, select the name of the organization most likely to fund stewardship activities from the drop-down menu. The valid list is the same as the one for "Post-EM Mission Landlord". The funding organization field has been seeded with information collected in the Fall 1998 Stewardship data collection survey and is consistent with Requirement 1077.

Description of Stewardship Activities: This field contains a narrative to describe future stewardship activities at the geographic site. Specifically, discuss institutional control requirements including long-term surveillance, monitoring, and maintenance responsibilities for DOE and other prospective landlords. This description should include assumed scope, frequency, and duration of stewardship activities. The narrative field has been seeded with information collected in the Fall of 1998 as part of the Stewardship survey and is consistent with Requirement 1074.

Year Transferred: This field contains the date the geographic site was or is likely to be transferred from EM to the Landlord or to the steward organization. Dates will be displayed as a four-digit year. The year transferred field has been seeded with information collected in the Fall of 1998 as part of the Stewardship survey and is consistent with Requirement 1074.

Projected Agreement Date: This field contains the projected date a stewardship MOU will be reached (if known or projected) with the responsible organization. This information is consistent with Requirement 1074. Dates will be displayed as a four-digit year. This field does not have seeded data.

Memorandum of Understanding Description: This field contains a narrative to describe any memorandum of understanding (MOU) or agreements for the stewardship role at the geographic site. The MOU narrative has been seeded with information collected in the Fall of 1998 as part of the Stewardship survey and is consistent with Requirement 1074.

Category: This field contains a numeric identifier for the cleanup status at the geographic site. This information is requested consistent with Requirement 1077. Valid values for this field are the numbers 1 - 7

1Note that this is a shared valid list of non-EM organizations that includes some organizations that are not applicable in the context of "Landlord."

which are associated with a stewardship category description that can be found in Table A-30 of Attachment A.

To change the stewardship category associated with the geographic site, select the appropriate category from the drop-down menu provided. After you have selected the appropriate stewardship category and completed all other stewardship information, click on the gray "Save" button at the bottom of the screen. If the user selected stewardship categories 2, 3, 5, or 7, all required stewardship data have been provided. If stewardship categories 1, 4, or 6 were selected for the geographic site, the user will be returned to the stewardship screen and, at the bottom of the screen, asked to identify the PBS(s) that contain stewardship costs. The PBS(s) can be identified by clicking on the gray "Add" button that appears at the bottom of the screen, selecting a PBS from the drop-down menu, clicking the gray "Add" button, and repeating the process until all PBS(s) containing stewardship costs are identified. If the PBS you need to select is not displayed, contact the IDMS support desk.

3.2.3 Risk

At the geographic site level, each Operations/Field Office is required to provide public, worker, and environmental risk information (consistent with Requirements 1509 and 1511). The following section discusses the risk requirements/screens in detail.

Entering Geographic Site Risk Information

Click on the blue "Risk" tab on the "Select Geographic Site" screen to enter public, worker, and environmental risk information for the geographic site.

Methodology: This narrative should provide a description of the methodology used to develop the list of 5-10 most serious hazards/risks at the geographic site (see below). This information is being requested for the first time and has therefore not been seeded. The length of the narrative should not exceed one 8.5"x11" typed page.

Geographic Site Risk and Hazard Information/Material Category: Operations/Field Offices are required to provide, by "material category", a discussion of the risk and hazards at each geographic site. "Material categories" are site-defined and are generally broken out by problem type at the geographic site. A "material category" might be a certain waste stream, a facility or group of facilities, a specific material/waste in storage, an area of the geographic site, a groundwater plume, or other entity. This list of material categories displayed in this section has been seeded with Site Risk Profile information from the Center for Risk Excellence. Each material category has a hyperlink to review/edit more detailed information. Click on any of the seeded material categories to review/edit the detail about each. To add a new material category, click on the gray "Add" button at the bottom of the screen. Clicking on either

the seeded material category hyperlinks or the gray "Add" button will bring up a data entry screen with the following fields:

Geographic Site Risk Associated With: This field contains the name of the geographic site that the risk is associated with. This field is locked based on the geographic site that was selected from the drop-down menu at the very top of the screen.

Material Category: Material categories are site-defined and are generally broken out by problem type at the geographic site. Material categories do not need to be consistent with waste/media types provided in the stream disposition data in AVS. This field has been seeded with information provided to the Center for Risk Excellence in the Site Risk Profiles. Please review and update this information if appropriate. If this is a new material category, please provide the name in this field.

Pathway: In this field, identify the pathway that is primarily affected by the risk from the drop-down list (environmental, public, or worker). This field has not been seeded. If more than one category applies, pick the entity most at risk.

> The drop-down list automatically defaults to "Environment", which is the first on the list. Review this information carefully.

Hazard Description: In this field, discuss the type and magnitude of the problem associated with the material category. This field has been seeded with information provided to the Center for Risk Excellence in the Site Risk Profiles. Please review and update this information if appropriate. If this is a new material category, please provide a description of the hazard in this field.

> Any quantitative information included in the hazard description should be consistent with quantitative information provided elsewhere in IDMS or in AVS.

Risk Description: In this field, discuss the risk posed by the material category. This field has been seeded with information provided to the Center for Risk Excellence in the Site Risk Profiles. Please review and update this information if appropriate. If this is a new material category, please provide a description of the risk posed in this field.

Management Status: In this field, describe the manner in which the geographic site is currently managing the risk (e.g., access restrictions)

related to the material category. This field has been seeded with information provided to the Center for Risk Excellence in the Site Risk Profiles. Please review and update this information if appropriate. If this is a new material category, please provide a description of the current risk management status in this field.

Risk Reduction Control: In this field, discuss the planned method at the geographic site for controlling risk (e.g., restricted access, remediation) related to the material category. This field has been seeded with information provided to the Center for Risk Excellence in the Site Risk Profiles. Please review and update this information if appropriate. If this is a new material category, please provide a description of the planned risk control methodology in this field.

Risk Reduction Progress: In this field, describe the planned result of the risk reduction measures (e.g., contamination removal will mitigate future risks of exposure) related to the material category. This field has been seeded with information provided to the Center for Risk Excellence in the Site Risk Profiles. Please review and update this information if appropriate. If this is a new material category, please provide a description of the planned result of risk reduction measures in this field.

Most Serious Risks/Risk Name: Operations/Field Offices are required to provide an unranked list of the 5-10 most serious public/worker/environmental hazards/risks at each geographic site posed by activities under EM management. In the case of small geographic sites, Operations/Field Offices may provide fewer than five serious risks/hazards. Material categories from the previous list may be listed here if they are considered one of the 5 - 10 most serious risks at the site. This information is being requested for the first time and has therefore not been seeded. In order to enter this information, click on the gray "Add" button associated with this table. A screen will appear that contains the following fields for data entry:

Geographic Site Risk Associated With: This field contains the name of the geographic site that the risk is associated with. This field is locked based on the geographic site that was selected from the drop-down menu at the very top of the screen.

Risk Name: In this field, enter the name of the serious hazard or risk. This field is limited to 100 characters.

Risk Description: In this field, provide additional detail about the serious hazard or risk.

3.2.4 Release Site Maintenance

This screen enables the user to enter and edit detailed data about release sites associated with a particular geographic site. The information entered into this screen is linked to release site information at the PBS level in both the planning and budget modules of IDMS. Release site data are being requested consistent with Requirements 1090 (list and description) and 1031 (status information). Operations/Field Offices must provide a list of release sites at each geographic site and a description and status for each. All release sites should be associated with a PBS (except for those completed prior to the development of PBSs). At the geographic site level, Operations/Field Offices can view the entire list of release sites associated with that geographic site and add/delete as necessary. Release sites are displayed on the screen 50 at a time; the next 50 can be viewed by clicking on the gray "Next 50 records" at the bottom of the screen.

> The list of release sites is carefully monitored at Headquarters and Operations/Field Offices may be required to provide supporting information if a release site is added/deleted or if changes are made to the name of the release site.

Entering Release Site Inventory Information

Click on the blue "RS-Maintenance" tab on the "Select Geographic Site" screen to enter and view the complete list of release sites associated with a particular geographic site.

Code: This field displays a unique release site code within each geographic site. This code is necessary for data management within the EM Corporate Database. This code cannot be edited/updated. To edit/view detailed release site information, click on the "Code" hyperlink.

Group: This field displays the unique natural grouping name to which the release site belongs. To edit this field, select the "Code" hyperlink and select the correct "Natural Grouping" from the pick list for the release site. Additional natural groupings can be added by clicking on the "Code" hyperlink for any release site and then clicking on the "Add Natural Group" button. Natural grouping identification is optional. The natural grouping is a Field-designated group of release sites that have similar characteristics (e.g., belong to the same operable unit or waste area group) and will be assigned the same assessment and completion date for tracking purposes at Headquarters. Once a group of release sites are assigned to the same natural grouping, the dates can be changed for

all of the release sites in that natural group by changing the date for the natural grouping.

Name: This field displays the field code and the descriptive name of the release site. This field cannot be edited on this screen. To change the name of a release site, select the "Code" hyperlink which will display the detailed release site screen. This name should be less than 250 characters. To edit this name, click inside the text box. To add a release site, click on the gray "Add" button at the bottom of the screen and complete the information required on the detail screen (explained below).

> Changes to release site names should be kept to a minimum and may require additional explanation if changed.

Planned Assessment: This field displays the year that the release site assessment is planned to be completed. This should be the date in the site baseline for completing the assessment activities for the release site. An assessment should be considered complete when the preliminary assessment or assessment phase is complete and appropriate documentation has been submitted to the regulator for either a remedial action or a no action decision. Dates are displayed as a four-digit year (e.g., 2001). To change this information, you must go to the PBS planning module, RS Cleanup tab.

Actual Assessment: This field displays the actual assessment date that has been seeded from last year's *Paths to Closure* data collection (for actual assessments completed before 1998) and the fall Budget Data Template (for actual assessments completed in 1998). An assessment should be considered complete when the preliminary assessment or assessment phase is complete and appropriate documentation has been submitted to the regulator for either a remedial action or a no action decision. Actual assessment dates cannot be edited in IDMS. New FY 1999 actual assessment dates will be updated during the FY 1999 execution process at mid year.

At Target Assessment: This field displays the budget target assessment date that has been entered for the release site in the budget module. These dates are necessary to generate performance measure goals for FY 1999, FY 2000, and FY 2001. FY 1999 and FY 2000 dates are locked. Therefore, updates to this field should focus on providing an accurate list of release site assessments that will be completed in FY 2001 at the Target level of funding. Dates less than 1999 and greater than 2001 in this field will not be used by Headquarters. An assessment should be considered complete when the release site moves from the study phase to

the cleanup or no action phase. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen to go to the budget module and follow the instructions for changing at target assessment dates for release sites in the "Rel. Sites" tab.

Planned Completion: This field displays the year that the release site completion is planned. A release site is considered complete once the physical remediation has been finished or a no action decision rendered and the appropriate documentation has been submitted to the regulator. This should be the date in the site baseline for completing the release site. Dates are displayed as a four-digit year (e.g., 2001). To change this information, you must go to the PBS planning module, RS Cleanup tab.

Actual Completion: This field displays the actual completion date that was seeded from last year's *Paths to Closure* data collection (for actual completions before 1998) and the fall Budget Data Template (for actual completions in 1998). A release site is considered complete once the physical remediation has been finished or a no action decision rendered and the appropriate documentation has been submitted to the regulator. Actual completion dates cannot be edited in IDMS. New FY 1999 actual completion dates will be updated during the FY 1999 execution process. If a release site has been completed through a no action determination, the "No Further Action Determination" check box on the release site detail screen must be checked.

At Target Completion: This field displays the budget target completion date that is entered for the release site in the budget module. These dates are necessary to generate performance measure goals for FY 1999, FY 2000, and FY 2001. FY 1999 and FY 2000 dates are locked. Therefore, updates to this field should focus on providing an accurate list of release sites that will be completed in FY 2001 at the Target level of funding. Dates less than 1999 and greater than 2001 in this field will not be used by Headquarters. A release site is considered "complete" once a no action decision has been made and the documentation has been sent to the regulators or physical cleanup has been completed and the documentation has been submitted to the regulators. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen to go to the budget module and follow the instructions for changing at target completion dates for release sites in the "Rel. Sites" tab.

Entering Detailed Release Site Information

To edit more detailed information about a release site, click on the "Code" hyperlink. IDMS will display data entry fields such as release site name, associated PBS number, and class/subclass. This information can also be updated/viewed at the PBS level in the planning module. Instructions for entering the detailed release site information are below.

Name: This field displays the descriptive name that uniquely identifies the release site. This name should be less than 250 characters. To edit this name, click inside the text box.

> Changes to release site names should be kept to a minimum and may require additional explanation if changed.

Release Site Code: This field displays the unique four digit release site code. This code is generated by the system and cannot be edited.

Geographic Site: This field displays the geographic site with which the release site is associated. This information is locked and cannot be updated in IDMS.

PBS No.: This field has been seeded with the PBS that this release site was associated with in the last *Paths to Closure* data collection. To edit the PBS that this release site is associated with, click on the drop-down list of the valid PBS names and numbers for the Operations/Field Office and select the appropriate PBS.

Natural Group: Natural grouping identification for a release site is optional. The natural grouping is a Field-designated group of release sites that have similar characteristics (e.g., belong to the same operable unit or waste area group) and will be assigned the same assessment and completion date for tracking purposes at Headquarters. This field provides a drop-down list that contains any natural groupings that have been added for the geographic site. To associate a release site with a natural grouping or change which natural grouping the release site is associated with, choose a natural grouping from the drop-down list. Additional natural groupings can be added clicking on the gray "Add Natural Group" button at the bottom of the screen.

Add Natural Group: To add a natural grouping, select the "Add Natural Group" button at the bottom of the screen. Enter the name of the new natural grouping in the text box and click on the "Save Changes" button. This will add the natural grouping to the "Natural Group" drop-down list. You must still associate the release site with the new natural grouping on the release site detail screen.

Class/Subclass: This field displays the specific class/subclass combination that describes the release site. To edit this information, click on the drop-down list and select the appropriate class/subclass combination.

No Further Action Determination: Place a "✓" in this box to indicate that a No Further Action decision has been made for the release site.

Date Accepted Into the Program: In this field, enter the date that the release site was recognized by the EM program. Dates should be entered as a four-digit year (e.g., 1997).

Radioactive Site: Place a "✓" in this box to indicate that the release site has radionuclides present or suspected.

Complete Assessment: On this screen, IDMS displays assessment dates, if provided, from the budget and planning modules. The following list describes each date displayed on this screen in detail:

Actual: This field displays the actual assessment date that has been seeded from last year's *Paths to Closure* data collection (for actual assessments completed before 1998) and the fall Budget Data Template (for actual assessments completed in 1998).

At Target: This field displays the budget target assessment completion date that is entered for the release site in the budget module. This reflects the year the release site will finish assessment at the budget target level for FY 1999, FY 2000, and FY 2001. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen to go to the budget module and follow the instructions for changing at target assessment completion dates for release sites in the "Rel. Sites" tab.

Planned: This field displays the planned assessment completion date that was entered in the release site summary screen at the PBS level. To change this information, you must go to the PBS planning module, RS Cleanup tab.

Complete Cleanup: On this screen, IDMS displays completion dates, if provided, from the budget and planning modules. The following list describes each date displayed in detail:

Actual: This field displays the actual completion date that was seeded from last year's *Paths to Closure* data collection (for actual cleanups completed before 1998) and the fall Budget Data Template (for actual cleanups completed in 1998).

At Target: This field displays the budget target completion date that is entered for the release site in the budget module. This reflects the year the release site will be completed at the budget target level for FY 1999, FY 2000, and FY 2001. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen to go to the budget module and follow the instructions for changing at target completion dates for release sites in the "Rel. Sites" tab.

Planned: This field displays the planned completion date that was entered in the release site summary screen at the PBS level. To change this information, you must go to the PBS planning module, RS Cleanup tab.

Deleting a Release Site

IDMS will only display the "Delete Release Site" button if the release site has an At Target Assessment and/or At Target Completion date of FY 2001 or later. Release sites that have been historically completed or were reported in the FY 2000 Congressional budget as scheduled for completion in FY 1999 or FY 2000 (in the at target column) cannot be deleted. To delete a release site, select the "Delete Release Site" button at the bottom of the release site detail screen. The release site will be removed from the list of release sites associated with the selected PBS. However, the release site will not be deleted from IDMS entirely. Instead, the release site will appear on the "RS Maintenance" tab at the geographic site planning level in red to indicate that it has been removed. Deleted release sites are not included in any calculated or derived numbers.

> The list of release sites is monitored carefully at Headquarters and additional information may be required if a release site is deleted.

3.2.5 Facility Maintenance

This screen enables the user to enter and edit detailed data about facilities associated with a particular geographic site. The information entered into this screen is linked to facility information at the PBS level in both the Planning and Budgeting modules of IDMS. Both deactivation and decommissioning data are included in this screen. Facility deactivation and decommissioning data are being requested consistent with Requirements 1097 (list and description) and 1096 (status information). Operations/Field Offices must maintain a list of facilities at each geographic site that are scheduled to be deactivated and/or decommissioned by EM at each geographic site and a description and status for each. All facilities should be associated with a PBS in both the deactivation and decommissioning phase, if applicable (except for those completed prior to the development of PBSs). Deactivation and decommissioning of the same facility may be completed under different PBSs.

Editing Facility Inventory Information

Click on the blue "Fac-Maintenance" tab on the "Select Geographic Site" screen to enter and view the complete list of facilities associated with a particular geographic site.

Code: This field displays a unique facility code within the geographic site. This code cannot be edited/updated. To edit/view detailed facility deactivation/decommissioning information, click on the "Code" hyperlink.

Group: This field displays the unique natural grouping name to which the facility belongs. To edit this field, select the "Code" hyperlink and edit the "Natural Grouping" from the pick list for the facility. Additional natural groupings can be added by clicking on the gray "Add Natural Group" button. Natural grouping identification is optional. The natural grouping is a Field-designated group of facilities that have similar characteristics (e.g., belong to the same group of buildings or cluster) and will be assigned the same deactivation date and/or decommissioning assessment and/or completion date for tracking purposes at Headquarters. Once a group of facilities are assigned to the same natural grouping, the deactivation and/or decommissioning assessment and/or completion date can be changed for all of the facilities by changing the assessment and/or completion date for the natural grouping. For more detailed instructions on using the natural grouping function in IDMS, see the "Update Natural Grouping" section below.

Name: This field displays the descriptive name of the facility. This field cannot be edited on this screen. To change the name of a facility, select the "Code" hyperlink which will display the detailed facility screen. To add a facility, click on the gray "Add" button at the bottom of the screen and complete the information required on the detail screen (explained below).

> Changes to facility names should be kept to a minimum and may require additional explanation if changed.

Planned Assessment: This field displays the year that the facility decommissioning assessment is planned to be completed. This should be the date in the site baseline for completing the facility decommissioning assessment. Dates are displayed as a four-digit year (e.g.; 2001). To change this information, you must go to the PBS planning module, Decommissioning tab.

Actual Assessment: This field displays the actual decommissioning assessment date that has been seeded from last year's *Paths to Closure* data collection (for actual decommissioning assessments completed before 1998) and the fall budget Data Template (for actual decommissioning assessments completed in 1998). An assessment should be considered complete when the facility has been characterized for decommissioning or no action response completed and the appropriate documentation has been submitted to the regulator. Actual

decommissioning assessment dates cannot be edited in IDMS. New FY 1999 actual decommissioning assessment dates will be updated during the FY 1999 execution process at mid year.

At Target Assessment: This field displays the at target decommissioning assessment date that is entered for the facility in the budget module. These dates are necessary to generate performance measure goals for FY 1999, FY 2000, and FY 2001. FY 1999 and FY 2000 dates are locked. Therefore, updates to this field should focus on providing an accurate list of facility decommissioning assessments that will be completed in FY 2001 at the Target level of funding. Dates less than 1999 and greater than 2001 in this field will not be used by Headquarters. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen and follow the instructions for changing at target decommissioning assessment dates for facilities in the "Decommissioning" tab.

Planned Completion: This field displays the year that the facility decommissioning completion is planned. This should be the date in the site baseline for completing the facility decommissioning. Dates are displayed as a four-digit year (e.g.; 2001). To change this information, you must go to the PBS planning module, Decommissioning tab.

Actual Completion: This field displays the actual decommissioning date that has been seeded from last year's *Paths to Closure* data collection (for actual decommissioning completed before 1998 and the fall budget Data Template (for actual decommissioning completed in 1998). A facility should be considered complete once the physical decommissioning activities have been completed or no action response completed and the appropriate documentation has been submitted to the regulator. Actual decommissioning completion dates cannot be edited in IDMS. New FY 1999 actual decommissioning completion dates will be updated during the FY 1999 execution process.

At Target Completion: This field displays the at target decommissioning completion date that is entered for the facility in the budget module. These dates are necessary to generate performance measure goals for FY 1999, FY 2000, and FY 2001. FY 1999 and FY 2000 dates are locked. Therefore, updates to this field should focus on providing an accurate list of facility decommissioning completions in FY 2001 at the Target level of funding. Dates less than 1999 and greater than 2001 in this field will not be used by Headquarters. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen and follow the instructions for changing at target decommissioning completion dates for facilities in the "Decommissioning" tab.

Planned Deactivation: This field displays the year that the facility deactivation is planned to be completed. This should be the date in the

site baseline for completing the facility deactivation. Dates are displayed as a four-digit year (e.g., 2001). To change this information, you must go to the PBS planning module, Deactivation tab.

Actual Deactivation: This information has not been previously requested. New FY 1999 actual deactivation dates will be updated during the FY 1999 execution process.

At Target Deactivation: This field displays the budget target deactivation date that is entered for the facility in the budget module. These dates are necessary to generate performance measure goals for FY 1999, FY 2000, and FY 2001. Updates to this field should focus on providing an accurate list of facility deactivations that will be completed in FY 2001 at the Target level of funding. Dates less than 1999 and greater than 2001 in this field will not be used by Headquarters. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen and follow the instructions for changing at target deactivation dates for facilities in the "Deactivation" tab.

Editing Detailed Facility Information

To edit more detailed information about a facility, click on the "Code" hyperlink. IDMS will display data entry fields such as facility name, associated PBS number, and class/subclass. This information can also be updated/viewed at the PBS level in the planning module. Instructions for entering the detailed facility information are below.

Name: This field displays the descriptive name that uniquely identifies the facility. This name should be less than 250 characters. To edit this name, click inside the text box.

Facility Code: This field displays the unique four digit facility code. This code is generated by the system and cannot be edited.

Geographic Site: This field displays the geographic site with which the facility is associated. This information is locked and cannot be updated in IDMS.

Deactivation PBS No.: In this field, enter/update/view the PBS that the facility is associated with for deactivation. This may be a different PBS than the one that the facility is associated with for decommissioning. To edit the PBS that this facility is associated with, click on the drop-down list of the valid PBS names and numbers for the Operations/Field Office and select the appropriate PBS.

Decommissioning PBS No.: In this field, enter/update/view the PBS that the facility is associated with for decommissioning. This may be a different PBS than the one that the facility is associated with for deactivation. To edit the PBS that this facility is associated with, click on the drop-down list of the valid PBS names and numbers for the Operations/Field Office and select the appropriate PBS.

Natural Group: Natural grouping identification for a facility is optional. The natural grouping is a Field-designated group of facilities that have similar characteristics (e.g., belong to the same group of buildings or cluster) and will be assigned the same assessment and completion date for tracking purposes at Headquarters. This field provides a drop-down list that contains any natural groupings that have been added for the geographic site. To associate a facility with a natural grouping or change which natural grouping the facility is associated with, choose a natural grouping from the drop-down list. Additional natural groupings can be added clicking on the gray "Add Natural Group" button at the bottom of the screen.

Add Natural Group: To add a natural grouping, select the "Add Natural Group" button at the bottom of the screen. Enter the name of the new natural grouping in the text box and click on the "Save Changes" button. This will add the natural grouping to the "Natural Group" drop-down list. You must still associate the facility with the new natural grouping on the facility detail screen.

Hazard: This field displays the name of the present hazard based on EM STD 5502. To edit the hazard information, click on the drop-down list and select the appropriate hazard. Please refer to Table A-14 of Attachment A for the valid list of hazards.

> The Hazard field defaults to NF 1. Review this information carefully.

Class/Subclass: This field displays the specific class/subclass combination that describes the facility. To edit this information, click on the drop-down list and select the appropriate class/subclass combination.

No Further Action Determination: Place a "✓" in this box to indicate that a No Further Action decision has been made for the facility.

Radioactive Facility: Place a "✓" in this box to indicate that the facility has radionuclides present or suspected.

FIMS ID: This field is designed to display the code from the Facilities Information Management System (FIMS) associated with the facility. This field has not been seeded and is not editable. It is reserved for future data updates.

Date Accepted Into the Program: In this field, enter the date that the facility was recognized by the EM program. Dates should be entered as a four-digit year (e.g., 1997).

Facility Deactivation: IDMS displays deactivation dates, if provided,

from the budget and planning modules. The following list describes each date displayed in detail:

Actual Deactivation: This information has not been previously requested. New FY 1999 actual deactivation dates will be updated during the FY 1999 execution process.

At Target Deactivation: This field displays the budget target deactivation date that is entered for the facility in the budget module. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen (see Section 5.7).

Planned Deactivation: This field displays the planned facility deactivation date that was entered in the "Deactivation" summary screen at the PBS level in the planning module. To edit this date, return to the planing module by clicking on the "Planning Module" hyperlink at the bottom of the screen. See Section 3.1.7 for additional information.

Facility Decommissioning Assessment and Completion: IDMS displays facility decommissioning assessment and completion dates, if provided, from the budget and planning modules. The following list describes each date displayed in detail:

Actual Decommissioning Assessment: This field displays the actual decommissioning assessment date that has been seeded from last year's *Paths to Closure* data collection (for actual decommissioning assessments completed before 1998) and the fall budget Data Template (for actual decommissioning assessments completed in 1998). Actual decommissioning assessment dates cannot be edited in IDMS. New FY 1999 actual decommissioning assessment dates will be updated during the FY 1999 execution process at mid year.

At Target Decommissioning Assessment: This field displays the budget target decommissioning assessment date that is entered for the facility in the budget module. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen (see Section 5.8).

Planned Decommissioning Assessment: This field displays the planned facility decommissioning date that was entered in the "Decommissioning" summary screen at the PBS level in the planning module. To edit this date, return to the planing module by clicking on the "Planning Module" hyperlink at the bottom of the screen. See Section 3.1.8 for additional information.

Actual Decommissioning Completion: This field displays the actual decommissioning date that has been seeded from last year's *Paths to Closure* data collection (for actual decommissioning completed before 1998 and the fall budget Data Template (for actual decommissioning completed in 1998). Actual decommissioning completion dates cannot

be edited in IDMS. New FY 1999 actual decommissioning completion dates will be updated during the FY 1999 execution process.

At Target Decommissioning Completion: This field displays the budget target decommissioning completion date that is entered for the facility in the budget module. To edit this information, select the "Budget Module" hyperlink at the bottom of the screen (see Section 5.8).

Planned Decommissioning Completion: This field displays the planned facility decommissioning date that was entered in the "Decommissioning" summary screen at the PBS level in the planning module. To edit this date, return to the planing module by clicking on the "Planning Module" hyperlink at the bottom of the screen. See Section 3.1.8 for additional information.

Deleting a Facility

IDMS will only display the "Delete Facility" button if the facility has a At Target Decommissioning Assessment and/or At Target Decommissioning Completion date of FY 2001 or later. Facilities that have been historically completed or were reported in the FY 2000 Congressional budget as scheduled for completion in FY 1999 or FY 2000 (in the at target column) cannot be deleted. To delete the current facility, select the "Delete Facility" button at the bottom of the screen. The facility will be removed from the initial facility deactivation and decommissioning summary screens. However, the facility will not be deleted from IDMS entirely, rather the facility will appear on the "Fac. Maintenance" tab at the geographic site planning level in red to indicate that it has been removed. Deleted facilities are not included in any calculated or derived numbers.

> The list of facilities is monitored carefully at Headquarters and additional information may be required if a facility is deleted.

3.3 Site Summary Level

Once you have chosen the "Site Summary Level" option from the Choose Planning Level screen, you will enter the series of screens that enable you to edit/enter or view SSL data. At the SSL, you will edit/enter or view life-cycle cost data (Requirement 1039), programmatic risk data (Requirement 1018), safety and health narratives (Requirement 1022), regulatory agreement information (Requirement 1038), excess facilities cost data (Requirement 1103), and SSL annual reconciliation data (Requirement 1101). The following section describes the screens used to edit/enter and view SSL data.

Select SSL Screen

From the pull-down menu on the Select SSL screen, choose the SSL that you wish to edit/enter or view. Once you have made this selection, you will enter a series of screens used to edit/enter and view SSL data.

3.3.1 Cost

SSL life-cycle cost information by category and subcategory is used as a crosscut to show EM's planned life-cycle cost by the different activities that it performs. SSL life-cycle cost information is helpful for programmatic analysis and for communicating EM's goals to interested groups in documents like *Paths to Closure*. Cost data must be provided for FY 1997 through FY 2070 or until SSL completion, and the SSL life-cycle cost must equal the total EM cost by year for all PBSs associated with the SSL. Exhibit 3.1 displays the relationship between the EM baseline costs and the associated SSL cost by category/subcategory.

Exhibit 3.1: Total EM baseline cost should equal the total EM SSL cost by category/subcategory

The EM total baseline costs for all the PBSs associated with a given SSL must equal the EM cost totals by category/subcategory at that SSL.

The valid category and subcategory list must be used to allocate EM baseline costs across the SSL.

PBS EM Costs	1997	1998	1999	2000 →	2070
PBS 1	10	15	15	15	0
PBS 2	5	10	10	15	5
PBS 3	15	10	15	15	5
PBS 4	20	25	30	30	10
PBS 5	15	20	15	10	10
Total	**65**	**80**	**85**	**85**	**30**

SSL EM Costs	1997	1998	1999	2000 →	2070
LLW	15	25	20	20	0
TRU	0	0	0	0	0
Remedial Action-Assessment	20	15	20	15	0
Remedial Action-Cleanup	20	25	25	30	0
Landlord	0	0	5	5	25
Program Management	10	15	15	15	5
Total	**65**	**80**	**85**	**85**	**30**

Editing Life-cycle Cost Data by Category/ Subcategory

To edit SSL life-cycle cost data, click on the blue "Cost" tab on the "Select SSL" screen. The system will display the SSL cost table. On this screen, costs are broken out by category/subcategory. The information requested in this screen is consistent with Requirement 1039.

Category/Subcategory/Activity: The categories and subcategories that are displayed at the top of the table have been seeded from the latest data for this SSL from the 1998 *Paths to Closure* database. To add new

categories/subcategories, click on the "Add" button at the bottom of the screen to go to the category/subcategory pick list to select the category/subcategory to add. Click on the "Delete" button to delete category/subcategory, if necessary. The following table contains the valid list of SSL cost categories and subcategories.

Table 3.2: Valid List of SSL Cost Categories and Subcategories

Category	**Subcategory**	**Headquarters Only**
All Other Waste Types		
Facilities	Deactivation	
High-Level Waste (M3)	Storage	
High-Level Waste (M3)	Treatment	
Release Sites	Assessment	
Release Sites	Cleanup	
Program Direction	Program Direction	✓
D&D Fund, Uranium/Thorium		✓
Decommissioning		
Field Program Support		
Hazardous Waste		
Headquarters Program Support		✓
Landlord		
Long-Term Surveillance and Maintenance		
Low-Level Waste		
Mixed Low-Level Waste		
National Programs		✓
Nuclear Materials		
Science and Technology		✓
Spent Nuclear Fuel		
Transuranic Waste (M3)		

The user will enter the **EM cost** associated with that category/ subcategory for all appropriate years and five-year blocks in thousands of current year dollars. Based on the inflation (escalation) rate provided by the user for each year, the system will automatically calculate thousands of constant 1999 dollars for each category/subcategory for each year. Inflation (escalation) rates and constant 1999 dollar calculations can be viewed/updated by clicking on the gray "Constant $" button at the bottom of the screen. See Attachment F for a discussion of inflation (escalation) methodology.

Total SSL EM Cost: This field contains the total EM cost for all categories and subcategories for a particular year or five-year block for the SSL. This field is automatically calculated by the system using the data entered for each category/subcategory for each year. Non-EM costs reported as part of the PBS baseline should not be included in the SSL crosscut.

Total of Associated PBSs: This field displays the sum of the EM costs for the PBSs associated with the SSL for each year or five-year block.

> The total EM cost for each SSL should equal the total EM cost for all the PBSs associated with that SSL.

Totals: The system will automatically calculate total cost for each category/subcategory and for the PBSs associated with the SSL. The system will calculate three sets of totals: FY 1997 - FY 2006, FY 2007 - FY 2070, and Total Life-cycle Cost (FY 1997 - 2070).

3.3.2 Regulatory Agreements

IDMS will maintain a list of and some information about each regulatory agreement at the site. This information is requested consistent with Requirement 1038. This information will be linked to enforceable agreement milestones at the PBS level.

Entering Regulatory Agreement Information

Click on the blue "Reg. Agreements" tab on the "Select SSL" screen to enter regulatory agreements data. The system will display a list of regulatory agreements for the SSL. This list is seeded from the progress Tracking System (PTS). The name of each regulatory agreement on the list is a hyperlink to detailed information about the regulatory agreement. To edit/enter/view detailed information about a regulatory agreement click on the name of the regulatory agreement. Regulatory agreements can be added and deleted form this list. To add a regulatory agreement, click on the gray "Add" button at the bottom of the screen. The system will display the regulatory agreement detail screen. To delete a regulatory agreement, click on the hyperlink, and then click on the gray "Delete" button at the bottom of the regulatory agreement detail screen.

Agreement Name: This table provides a list of the current regulatory agreements at the site. The list is seeded from PTS. Click on any of the agreements to edit the following information:

Regulatory Agreement ID: this field contains a system-generated number that uniquely identifies each regulatory agreement for tracking purposes at Headquarters .

Agreement Name: In this field, enter the name of the regulatory agreement.

Code: In this field, enter/update the field-designated code that uniquely identifies each enforceable agreement.

Signed Date: In this field, enter the date the regulatory agreement was signed/executed. Dates should be in the format of MM/DD/YYYY.

Modified Date: in this field, enter/update the latest date the regulatory agreement was modified. Dates should be entered in the format MM/DD/YYYY.

Regulatory Agreement Description: In this field, enter a narrative to provide a brief description of the regulatory agreement.

DOE Point of Contact Name: In this field, enter the name of the point of contact for the regulatory agreement. This field should only contain one name.

DOE Point of Contact Phone: In this field, enter the phone number of the agreement point of contact.

DOE Point of Contact Fax: In this field, enter the phone number of the agreement point of contact.

DOE Point of Contact Email: In this field, enter the email address of the agreement point of contact.

3.3.3 Safety and Health and Programmatic Risk

Basic safety and health information is maintained at Headquarters to demonstrate Integrated Safety Management at EM sites. This information is consistent with Requirement 1022.

Entering SSL Safety and Health Narratives

Click on the blue "Safety/Health" tab on the "Select SSL" screen to edit/enter or view SSL safety and health narratives. This will bring up the screen where you can enter/edit or view safety and health information. There are two safety and health narratives at the SSL:

Feedback and Continuous Improvement Narrative: In this field, enter the feedback and continuous improvement narrative by site to describe the activities and mechanisms necessary to collect feedback information, identify and implement opportunities for improvement, and ensure oversight.

Programmatic Risk

Safety and Health Controls Narrative: In this field, enter the controls narrative by site to describe the formally-established and agreed-upon standards/requirements that have been tailored to address hazards associated with performing site activities. This narrative should include the standards and requirements necessary for both facility and worker safety. At the SSL, Operations/Field Offices are required to provide additional programmatic risk information. First, Operations/Field offices are given the opportunity to provide an optional SSL

programmatic risk narrative. In addition, Operations/Field Offices are required to provide an unranked list of the five to ten most serious technological, work scope, and inter-site or other programmatic risks at the site. This information will enable the sites to identify to Headquarters those issues that they believe require Headquarters support. This information is requested consistent with Requirement 1018.

Entering SSL Programmatic Risk Information

Click on the blue "Safety/Health" tab on the "Select SSL" screen to edit programmatic risk information.

Site Summary Level Programmatic Risk Narrative: Operations/Field Offices may enter an optional programmatic risk narrative at the SSL to supplement programmatic risk information provided at the milestone and stream levels. This information has not been seeded.

Programmatic Risk ID: This field contains the unique index that identifies the top 5-10 programmatic risks at the SSL. This number is automatically generated by the system and will appear when you click on the "Add a Programmatic Risk" button.

Programmatic Risk Name: In this field, enter the name of the serious technological, intersite, work scope, or other programmatic risk at the site.

Programmatic Risk Description: In this field, enter a brief description of the nature and cause of the programmatic risk named in the previous field.

Responsible Party: In this field, enter the organization code that identifies the organization/parties responsible for addressing the programmatic risk. Please refer to Table A-24 in Attachment A for the valid list is of organizations.

3.3.4 Annual SSL Reconciliation

One of the major components of the 1999 *Paths to Closure* document will be the explanation of significant changes from last year's life-cycle data to the current year's life-cycle data at the SSL. In this tab, Operations/Field Offices are required to enter data to reconcile these differences. This information is requested consistent with Requirement 1101.

Entering Annual SSL Reconciliation Information

Click on the blue "Reconciliation" tab on the "Select SSL" screen to edit or view SSL reconciliation information.

Description of Changes in the CCP for the SSL: In this field, enter a description of changes in the critical closure path for the site(s) relative to last year's critical closure path.

Description of changes in the life-cycle costs for completion of EM work scope: In this field, enter a description of changes in the life-cycle cost for completion of EM work scope, relative to last year's estimate. This should be a summary narrative that could be used in the *National Paths to Closure Report*

Effect of prior year on overall cost and schedule of EM work scope: In this field, enter a narrative discussing site-wide performance in the prior year and its effect on the overall cost and schedule for completion of EM workscope. The discussion should include the status of the following activities at the site based on prior year performance: integration, technology development, support costs reduction, contract incentives, mortgage reduction, project validation, and project efficiencies.

Cost of Excess Facilities: In this field, enter an order of magnitude total estimate for the cleanup of excess facilities at the SSL de-escalated to constant 1999 dollars. This estimate should include all facilities not in the EM inventory that are currently excess or projected to be excess as of the date of the data submittal. Provide a narrative about the basis for the estimate in the associated narrative field.

Excess Facilities Narrative: In this field, enter a narrative describing the method used to develop the excess facilities cost estimate that is requested at the bottom of the screen. This field is optional.

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4.0 Integrated Priority List Module

Each Operations/Field Office must provide an FY 2001 Integrated Priority List (IPL) in accordance with the requirements set forth in Section 6.2 of the "12/21/99 Guidance". The information requested in the IPL is consistent with Requirement 1008 from the IPABS-IS approved data requirements. Operations/Field Office IPLs outline, at the sub-PBS level of detail, the entire scope of work that could be accomplished in FY 2001 at the decrement (85% of target), target, and planning (baseline) funding levels for the Operations/Field Office. IPLs are used to support the budget formulation process, specifically to communicate and defend EM's budget within the Department and to OMB.

Adding an IPL Element

Once the user has selected the Integrated Priority List module for the first time, an empty IPL table will be displayed. In order to add an IPL element, click on the gray "Add" button on the bottom of the IPL table. Each element in the IPL must be associated with one and only one PBS. The IPL- Add screen will provide the following data entry fields for the new IPL element:

Sub-PBS Code: Enter a Field-designated sub-PBS code for the IPL element. This information is determined by the Operations/Field Office and should not exceed 25 characters.

Sub-PBS Name: Enter the name of the sub-PBS for the IPL element. This information is determined by the Operations/Field Office and should not exceed 100 characters.

PBS No. and Name: From the pull down menu, select the PBS number/name combination with which the IPL element is associated. Each IPL element can only be associated with one PBS.

> The pick list automatically defaults to the first PBS on the list, so be sure to review this field for accuracy.

CFO Category: From the pull down menu, select a Chief Financial Officer (CFO) Peer Review category to associate with the IPL element. Each IPL element must be binned into one and only one Peer Review category as listed in the table below. Each element should be assigned to the category that best describes the activity. If necessary, Operations/Field Offices should consider splitting an IPL element to more accurately categorize the activity. The pick list automatically

defaults to the first category on the list, so be sure to review this field for accuracy. The following table displays the CFO categories.

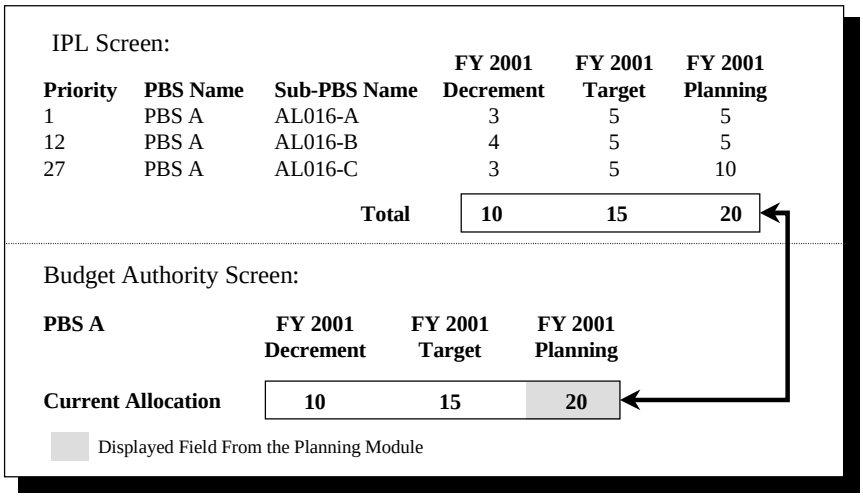
Table 4.1: CFO Categories

CFO Category	Category Name	CFO Category Description
A	Minimum Safety	Those surveillance, maintenance, and support activities required to control existing material, waste, and facilities in a safe, stable, condition (e.g., maintain ventilation systems to prevent buildup of explosive gases). Include no remediation, stabilization, or disposal unless safety-related. Do not include activities which simply comply with regulatory requirements and agreements but are not necessary for safe operations will not be included.
B	Essential Services	The balance of activities required to maintain the facility without advancing the mission (e.g., security outside the site fence).
C	Significant Safety Risks	Work required to mitigate known risks (e.g., DNFSB 94-1) which pose a significant hazard to workers, public, and/or the environment.
D	Additional Environmental Requirements	All other environmental activities (e.g., low risk environmental restoration) that have not been placed in any other of the categories.
E	Non-Proliferation	Management and disposition of foreign spent nuclear fuel and special nuclear material (e.g., IAEA).
F	Mortgage Reduction	Investing in activities that will result in lower life-cycle costs (e.g., accelerated processing to close out HLW tanks).
G	Community Mandates	Activities resulting from implementation of DOE policies. Examples include but are not limited to PILT, State Oversight, Agreements in Principle (AIPs), Historically Black Colleges and Universities (HBCUs), Tribal Grants, cooperative agreements, emergency preparedness grants, and openness initiatives. Litigation and adjustments to under- funded pensions are also part of this classification.

Planning: In this field, enter the BA for FY 2001 in thousands of current year dollars for the IPL element at the planning (baseline) funding level for the Operations/Field Office. The planning (baseline) funding level for each Operations/Field Office for FY 2001 should be consistent with the PBS baseline cost total for that Operations/Field Office for FY 2001. Exhibit 4.1 depicts the relationship between data in the "Current Allocation" field of the Budget Authority screen (Section

5.2) and the IPL elements at the decrement, target, and planning levels for a specific PBS.

Exhibit 4.1: Relationship between the BA and IPL data for a given PBS.



Target: In this field, enter the BA for FY 2001 in thousands of current year dollars for the IPL element at the target funding level for the Operations/Field Office. The IPL sub-totals for each PBS at the target funding level should equal the BA for each PBS at the target funding level, and the total BA on the IPL for the Operations/Field Office at the target funding level should equal the target provided by Headquarters.

Decrement: In this field, enter the BA for FY 2001 in thousands of current year dollars for each IPL element at the decrement (85% of target) funding level for the Operations/Field Office. The IPL sub-totals for each PBS at the decrement funding level should equal the BA for each PBS at the decrement level, and the total BA on the IPL at the decrement funding level for the Operations/Field Office should equal 85% of the BA target provided by Headquarters.

Impact Statement: In this narrative field, enter a narrative to discuss the impact to the IPL element at the planning, target, and decrement funding levels.

> If there is no difference in BA for this element across funding levels, then this field does not need to be completed.

Driver Categories: For each IPL element, enter the amount of the BA for FY 2001 in thousands of current year dollars that is associated with each driver category at the decrement, target, and planning funding levels. The sum of the distribution across driver categories for

decrement, target, and planning must equal the identified allocation for each IPL element.

IDMS will issue a warning if driver category amounts do not sum to the total amount for the IPL element. In most cases, more than one programmatic driver category will apply to a single IPL element. In the case where several programmatic drivers apply to a part of an IPL element and there is no way to discern which programmatic driver applies to which part (i.e., they are overlapping to the extent that they cannot be separated), the Project Manager should assign the BA to the programmatic driver category ranking the highest from the list below. If there is another part of the same IPL element for which a specific driver can be separately identified, funding for that driver should be included in the column for that specific driver in the same IPL element line. If there is no BA associated with a particular driver category, leave that box blank. The following table displays the valid driver categories.

Table 4.2: Valid Driver Categories

Driver Code	Driver Name	Driver Category Description
1	Required by a compliance agreement driver	This category includes activities required to meet enforceable milestones agreed to in cleanup and compliance agreements as well as program support/management activities that are directly required to meet such milestones.
2	Required by a court order, settlement agreement, or consent decree driver	This category includes activities taken to comply with consent decrees, settlement agreements, or court orders, as well as program support/management activities that directly support such activities.

Driver Code	Driver Name	Driver Category Description
3	Required by federal environmental statute or regulation (includes permits) driver	This category includes activities required to comply with federal environmental statutes, regulations, and permits that are not already captured under categories 1, 2, 4, or 6. Federal environmental statutes include but are not limited to, the Atomic Energy Act, the Pollution Prevention Act, Clean air Act, Clean Water Act, Resource Conservation and Recovery Act, Safe Water Drinking Act, Comprehensive Environmental Policy Act. This category also includes program support/management activities that directly support compliance with these federal laws and regulations.
4	Required by state or local statute or regulation (includes permits) driver	This category includes activities necessary to comply with applicable state or local statues, regulations, existing permits, draft permits, or proposed agreements that are not already captured under compliance categories 1, 2, or 3. This category also includes program support/management activities that directly support compliance with these laws and regulations.
5	Required to comply with commitments to the Defense Nuclear Facilities Safety Board (DNFSB) driver	This category includes activities necessary to comply with Departmental commitments to the DNFSB. This category also includes program support/management activities that directly support compliance with such commitments.

Driver Code	Driver Name	Driver Category Description
6	Required by DOE Order - Environment, Safety, and Health (DOE ES&H) driver	This category includes activities required to meeting one or more internal Department of Energy ES&H requirements, that are not already captured by categories 1, 2, 3, 4, or 5. This category also includes Executive Orders and program support/management that directly support compliance with Department of Energy ES&H orders.
7	Required by DOE Order - Management and Other driver	This category includes all actions taken in response to Department of Energy orders designed to implement best management practices. Program/management support activities (such as Department of Energy staff, support contractors, budget planning, and facility operation) are included in this category when the primary activity to be supported does not fall under categories 1, 2, 3, 4, 5, or 6 above.
8	Required by Agreements in Principle or Agreements with Indian Nations driver	This category includes activities that are not required by either categories 1, 2, 3, 4, 5, or 6 above, but are essential to meeting requirements of Agreements in Principle or agreements with Indian nations.
9	Required to meet a proposed Compliance Agreement driver	This category includes proposed or ongoing activities that are required by the projected provision of a proposed compliance agreements and are not already captured by categories 1, 2, 3, or 4.
10	Other Essential Management Functions driver	This category includes activities that are not required by either environmental law or internal S&H requirements, but are considered essential to effective site operations.

Assigning a Priority Number

To complete data entry for the IPL element, you must assign a "Priority" number to the element on the IPL summary screen. Numbers must be assigned sequentially from 1 to "n." The system will not allow numbers to be added out of sequence. These priority numbers can be changed and saved on the IPL summary screen. To save changes to the IPL summary screen, click on the gray "Save" button at the bottom of the screen. Once priority numbers have been assigned and you have clicked on the "save" button, the system will organize the IPL elements into numerical order, based on the priorities you assigned.

The above procedures for adding an IPL priority should be repeated for each element on the Operations/Field Office's Integrated Priority List. The main IPL screen will automatically calculate a running total of the decrement, target, and planning BA levels for all entered IPL elements so that the user can verify that these totals match the official decrement, target, and planning BA levels for the Operations/Field Office. The decrement, target, and planning amount for each element can be edited on the IPL screen if adjustments are necessary to align IPL totals with official funding levels.

Totals

At the bottom of the IPL summary screen, the system will display two totals:

Total (from IPL List): This field displays the totals, at the decrement, target, and planning levels, of the BA for all of the elements on the IPL. For the decrement and target levels, the total in this field cannot be greater than the Operations/Field Office targets. The planning level is should be consistent with the Operations/Field Office baseline for FY 2001.

Operations/Field Office Allocation: This Field displays the Operations/Field Office targets at the decrement and target funding levels as provided by Headquarters. This field cannot be updated.

IPL Narratives

To enter the narratives required to complete the IPL, click on the "Narratives" button at the bottom of the IPL summary screen. The IPL narratives screen will provide the following data entry fields:

IPL POC: In this field, enter the name of the Operations/Field Office principle contact person for the Integrated Priority List data.

IPL POC Phone: In this field, enter the phone number of the contact person for the Integrated Priority List data. The phone number should be entered in the following format: (XXX)XXX-XXXX.

Operations/Field Office Accomplishments and Compliance Issues at the Decrement Funding Level: In this field, provide a narrative that discusses Operations/Field Office level accomplishments and compliance issues at the decrement (85% of target) funding level for FY

2001. The narrative should include a discussion of the impacts on life-cycle cost and completion dates at the Operations/Field Office decrement level.

Operations/Field Office Accomplishments and Compliance Issues at the Target Funding Level: In this field, provide a narrative that discusses Operations/Field Office level accomplishments and compliance issues at the target funding level for FY 2001. The narrative should include a discussion of the impacts on life-cycle cost and geographic site completion dates at the Operations/Field Office target funding level.

Operations/Field Office Accomplishments and Compliance Issues at the Planning Level: In this field, provide a narrative that discusses Operations/Field Office level accomplishments and compliance issues at the planning (i.e., baseline) funding level for FY 2001. This level should represent the full baseline requirements case.

5.0 Budget Module

Operations/Field Offices (and Headquarters for HQ PBSs) will use IDMS to begin the FY 2001 budget formulation process. BA and performance measures data will be collected by PBS for the decrement (85% of target), target, and planning (baseline) levels for FY 2001. FY 1999 and FY 2000 data have been seeded into the budget module consistent with the FY 2000 Congressional Budget Request. FY 1999 and FY 2000 data can not be updated at this time. For FY 2001, the PBS baseline will be considered the planning case as provided through the planning module of IDMS. The target and decrement level BA and metrics for each PBS for FY 2001 should be consistent with the Operations/Field Office baseline (i.e., the planning case) for that PBS.

The budget module is used to collect Budget Authority (BA) and metrics data to begin FY 2001 budget formulation.

Select Account Screen

On this screen, the user should select from the pull-down menu the Appropriations/Program Account combination for which to view/update budget data. The following table provides a valid list of Appropriations/Program Account combinations.

Table 5.1: Valid List of Appropriations/Program Account Combinations

Account ID	**Appropriation Account**	**Program Account**	**Valid For Operations/ Field Office**
1	Defense Facilities Closure Projects	Site Closure	OH, RF
2	Defense Environmental Restoration and Waste Management	Post-2006 Completion	AL, CB, ID, NV, OR, RL, SR, DD, EH, HQ, MS
3	Defense Environmental Restoration and Waste Management	Project Completion	AL, CH, ID, OK, RL, SR
4	Defense Environmental Restoration and Waste Management	Program Direction	PD
5	Defense Environmental Management Privatization	Privatization	CB, ID, OR, RL

Account ID	Appropriation Account	Program Account	Valid For Operations/ Field Office
6	Defense Environmental Restoration and Waste Management	Science & Technology	ST
7	Uranium Enrichment Decontamination and Decommissioning Fund	D&D Fund	OR, UR
8	Non-Defense Environmental Management	Site Closure Fund	AL, OH, OR
9	Non-Defense Environmental Management	Post-2006 Completion	AL, OR, SR, HQ, MS
10	Non-Defense Environmental Management	Site Project Completion	AL, CH, ID, OK, RL

Select Project (PBS) Screen

On this screen, the user should select from the pull-down menu the project (i.e., PBS) for which to view/update budget data.

> Only those PBSs that are associated with the Appropriations/ Program Account selected in the previous screen will be displayed in the pull-down menu.

After the user selects the PBS, a series of tabs will be displayed: Narratives, Budget Authority, Waste, Nuclear Materials, Spent Nuclear Fuel, Release Sites, Deactivation, Decommissioning, Deployments, and Summary. Each of these tabs links to screens to be used to enter FY 2001 budget-related data for the Appropriations Account/Program Account/PBS combination selected. Guidance for these tabs are provided in Sections 5.1 through 5.9.

5.1 Budget Narratives

Budget Narratives

The request for budget narratives is consistent with Requirement 1003. Budget narratives entered into IDMS will be used to develop the FY 2001 Congressional budget. These narratives have not been seeded as

this is the beginning of the FY 2001 Budget formulation process. Enter the text for each narrative in the box provided under the appropriate narrative heading. IDMS has a cut and paste feature so that narrative information can be moved across fields and/or from other word processing applications.

> The budget narratives, as entered into IDMS, are going to be used in the FY 2001 Congressional budget. Please limit each narrative to 800 characters (approximately ten lines on a standard 8 ½ by 11 page in 12 point font).

The following budget-related narratives are required for each PBS:

Project Description: In this narrative field, enter a condensed, timeless version of the PBS purpose, scope, and technical approach narrative provided as part of the PBS planning data submittal. It is necessary to provide a condensed version of the PBS purpose, scope, and technical approach narrative for budget purposes to accommodate the space constraints of the budget document. This information can be cut and pasted from the planning narratives if that is desired.

Accomplishments through FY 2000: In this narrative field, enter a narrative to discuss PBS accomplishments through FY 2000. As in FY 2000, this information does not have to be discussed by year; however, year designations should be placed in parenthesis after each accomplishment.

> All narratives must be consistent with metrics and milestones for this PBS as they exist in the FY 2000 budget.

Fiscal Year 2001 Planned Activities: In this narrative field, enter a narrative to discuss planned PBS accomplishments for the budget formulation year (FY 2001) at the **target funding level**. Any quantitative information contained in this narrative must be consistent with budget-related performance metrics or budget authority (BA) data provided elsewhere in IDMS.

5.2 Budget Authority

PBS-level Budget Authority Data

Click on the blue "Bgt. Auth." tab on the "Select Project" screen to enter PBS-level budget authority (BA) data. The system will display the screen for entering budget authority (BA) data for the selected PBS. FY 1999 and FY 2000 BA are locked at this time. These data are seeded

and consistent with the FY 2000 Congressional budget submission. This screen is consistent with Requirement 1001. The PBS-level BA screen contains two tables: one to provide auditable PBS-level BA and one to provide an estimated BA crosscut by category and subcategory for the PBS. Use the table in the top section of the screen to enter/edit or view project-level budget authority data for the PBS.

Total Account Balance: This field displays the current summary balance across all PBSs in the selected Appropriations/Program Account for the specific Operations/Field Office. This field is calculated and cannot be directly updated.

IPL Allocation: This field is locked on this screen for the decrement, target, and planning funding levels. The numbers that are displayed in this row are taken from the sum of the decrement, target, and planning BA entered for IPL elements associated with this PBS on the IPL data entry screen.

Estimate of Allocation: This row displays the sum of the BA for each year for the PBS by category and subcategory as entered in the BA crosscut table (discussed below). For each year, this sum should be consistent with the BA by PBS (current allocation). If the totals do not match the BA by PBS totals, changes can be made at the bottom section of the screen in the BA crosscut table. The FY 2001 Target, Decrement, and Planning fields should be completed for each category/subcategory. Data in the Estimate of Allocation row are calculated and can not be directly updated here.

Current Allocation: These fields indicate the allocation of BA to a specific PBS. The following fields are included:

FY 1999: This cell displays the FY 1999 Appropriation (BA) for the PBS as included in the FY 2000 Congressional budget This field is locked and cannot be edited at this time.

FY 2000: This cell displays the FY 2000 Congressional Budget Request (BA) for the PBS. This field is locked and cannot be edited at this time.

FY 2001 Decrement: Enter the FY 2001 BA for the PBS in thousands of current year dollars at the decrement funding level for the Operations/Field Office. **NOTE:** 85% is at the Operations/Field Office level. The BA allocation to this PBS at this BA level may be greater than, less than, or equal to the FY 2001 target for this PBS. The amount entered here must equal the IPL totals for this PBS.

FY 2001 Target: Enter the FY 2001 BA for the PBS in thousands of current year dollars at the target funding level for the Operations/Field Office. The amount entered here must equal the IPL totals for this PBS.

FY 2001 Planning: In this field, the FY 2001 cost (used here as a surrogate for BA) for the PBS in thousands of current year dollars at the planning (baseline) funding level is displayed from the PBS-level "Cost" screen in the planning module. This field cannot be edited on this screen.

> Totals for each year in the Estimate of Allocation and Current Allocation fields must match or IDMS will issue an error message.

Budget Authority Crosscut Data

Use the table in the bottom section of the screen to enter/edit or view budget authority crosscut data for the PBS by category and subcategory. See Table A-7 of Attachment A for a valid list of BA categories and subcategories. This information will be used as a supplemental crosscut in the FY 2001 Congressional budget submission and is not considered "auditable." The following fields make up the BA Crosscut Table:

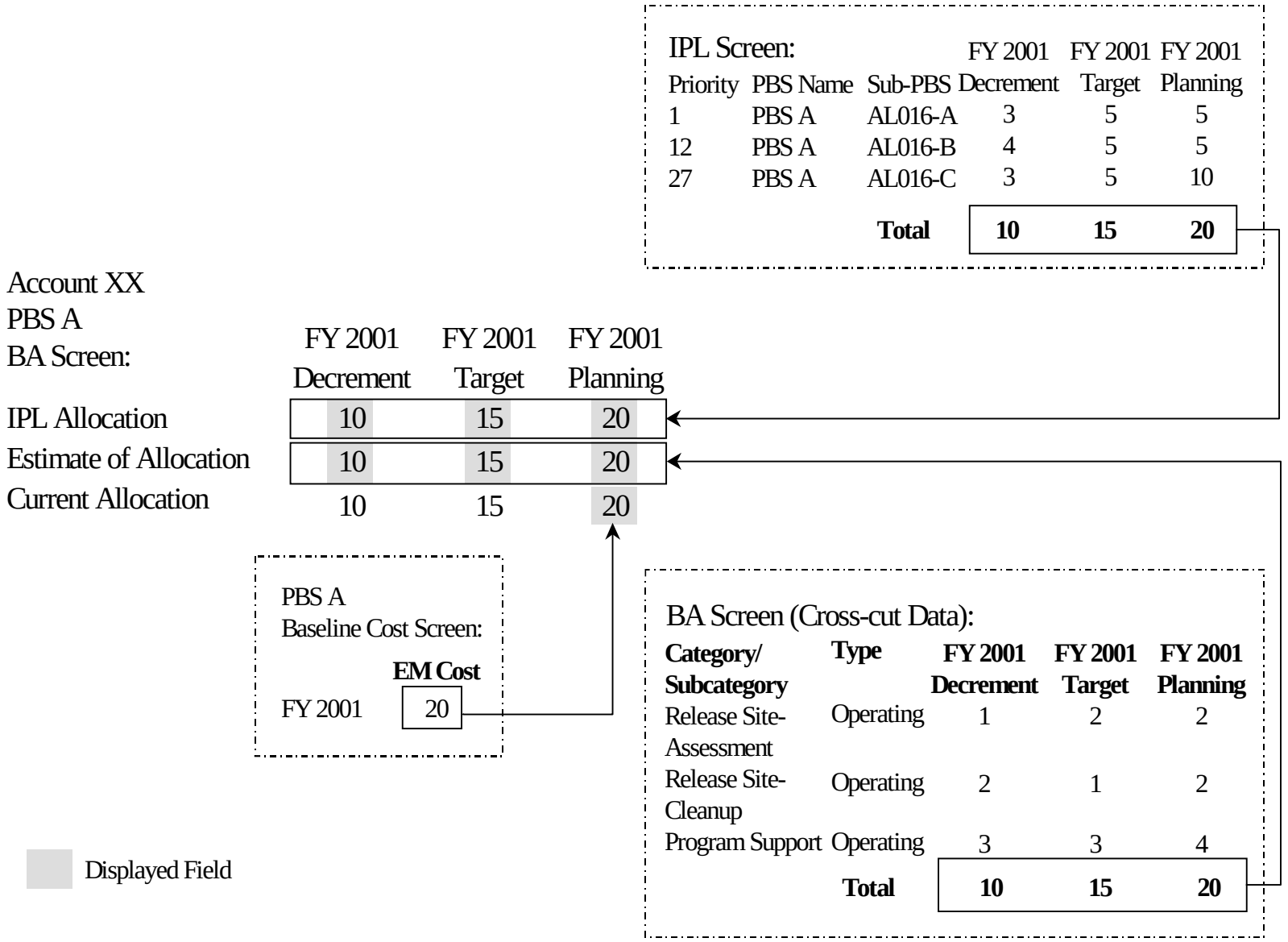
Category/Subcategory: The estimated BA category/subcategory combination(s) that is (are) displayed in this column have been seeded with data that were provided for this PBS in the Budget Data Template to support the FY 2000 Congressional budget. Other categories and subcategories can be added from the valid list found in Table A-7 of Attachment A. To add a category/subcategory, click on the gray "Add Category/Subcategory" button at the bottom of the screen.

For the category/subcategory/type combination that you have selected, enter the decrement (85% of target), target, and planning BA for FY 2001. Once you are sure that the information you have entered is correct, click on the gray "Save" button. This category/subcategory/type combination will be added to the list of categories/subcategories on the Budget Authority screen. Decrement, target, and planning BA for FY 2001 for the new category/subcategory/type may be edited on this screen. BA for FY 1999 and/or FY 2000 cannot be entered for any new category/subcategory/type combination.

Type: The expense type for the BA associated with this category/subcategory is displayed in this column. Please refer to Table A-8 in Attachment A for the valid list of expense types.

> One category/subcategory can be added with multiple types, if necessary, to produce various category/subcategory/type combinations.

Exhibit 5.2: Sources of Displayed Data on Budget Authority Screen



For each category/subcategory/type combination, the following data are required:

FY 1999 Appropriation: This field displays the FY 1999 Appropriation (BA) for the category/subcategory/type combination as included in the FY 2000 Congressional budget. This field is locked and cannot be edited at this time.

FY 2000 Cong. Request: This field displays the FY 2000 Congressional Budget Request (BA) for the category/subcategory/type combination. This field is locked and cannot be edited at this time.

FY 2001 Decrement: Enter the FY 2001 BA for the category/subcategory/type combination in thousands of current year dollars at the decrement funding level.

FY 2001 Target: Enter the FY 2001 BA for the category/subcategory/type combination in thousands of current year dollars at the target funding level.

FY 2001 Planning: Enter the FY 2001 BA for the category/subcategory/type combination in thousands of current year dollars at the planning (baseline) funding level.

Performance Measures

In addition to BA, Operations/Field Offices will be required to provide performance metrics to support the FY 2001 budget. Performance measures are integral to the performance-based budgeting approach that EM has committed to in accordance with the Government Performance and Results Act (GPRA). EM has developed a single set of corporate performance measures that focus on achieving EM's *Paths to Closure* end states and program outcomes, and on those crosscutting areas essential to accomplishing program results effectively and efficiently (i.e., financial, safety and health, risk reduction, and stakeholder trust and confidence measures). The valid list of EM corporate performance measures is outlined in the "12/21/98 Guidance," and definitions for each measure were provided in the October 21, 1998 guidance to develop the FY 2000 Congressional budget. The valid list of corporate performance measures and definition are included in Attachment C. The EM corporate performance measures are grouped in the following categories:

- Waste
- Nuclear Materials
- Spent Nuclear Fuel
- Release Sites
- Facility Deactivation
- Facility Decommissioning
- Deployments

The following sections explain the different categories of performance measures and how to provide them for the budget in IDMS:

5.3 Waste

Budget-level stream disposition data (SDD) for FY 1999 and FY 2000 are collected through the Budget Data Template and are displayed in the budget module of IDMS. Project-level summaries of stream-level planning data for FY 1999 and FY 2000 were provided to the field, noting that not all streams were linked to projects. The field then provided the project level summaries for FY 1999 and FY 2000 that were subsequently loaded into the Budget Data Template. FY 2001 Planning SDD are collected through the Analysis and Visualization System (AVS) and are rolled up using a series of rules ("recipes") to seed the waste planning quantity data in IDMS. See Attachment D for a description of these "recipes". These numbers are displayed in the budget module to be used as a reference for establishing FY 2001 budget metrics.

Entering Waste Performance Measures

Click on the blue "Waste" tab on the "Select Project" screen in the budget module to enter waste performance measures. The system will display the Waste Performance Measures table for the Appropriations Account/Program Account/PBS combination that you selected (see Section 5.0). This table has been seeded from the Budget Data Template. The Waste Performance Measures table contains the following fields:

Category/Subcategory: The category/subcategory combination(s) that is (are) displayed in this column are being displayed from what was seeded from the Budget Data Template.

FY 1999 Appropriation: This field displays the FY 1999 amount for the waste category/subcategory consistent with the Appropriation for the waste category/subcategory as included in the FY 2000 Congressional budget. This field is locked and cannot be edited at this time. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., m^3).

FY 2000 Cong. Request: This field displays the FY 2000 amount for the waste category/subcategory as provided in the FY 2000 Congressional budget. This field is locked and cannot be edited at this time. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., m^3).

Decrement: Enter the FY 2001 amount for the waste category/subcategory at the decrement (85% of target) funding level for the Operations/Field Office. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., m^3).

FY 2001 Target: Enter the FY 2001 amount for the waste category/subcategory at the target funding level for the Operations/Field Office. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., m^3).

Planning: FY 2001 planning waste performance measures are displayed from the planning module of IDMS. Planning-level metrics are derived from AVS quantity data using a series of rules ("recipes"). See Attachment D.

5.4 Nuclear Materials

Nuclear materials performance measure data seeded in IDMS comes from the Budget Data Template. Additional categories/subcategories of nuclear materials quantities may be established through the nuclear materials ("N.M.") tab at the project level in the planning module of IDMS. If additional categories/subcategories have been established for a particular project in the planning module, the system will display the FY 2001 planning metrics in the budget module to be used as a reference for establishing FY 2001 budget metrics.

Entering Nuclear Materials Performance Measures

Click on the blue "N.M.." tab on the "Select Project" screen in the budget module to enter nuclear materials performance measures. The system will display the Nuclear Materials Performance Measures table for the Appropriations Account/Program Account/PBS combination that you selected (see Section 5.0). The Nuclear Materials Performance Measures table contains the following fields:

Category/Subcategory: The category/subcategory combination(s) that is (are) displayed in this column are being displayed from what was entered for this project in the Budget Data Temple or the planning module of IDMS. Edits to this list of category/subcategory combinations can be made through the N.M. tab at the project level in the planning module. To get to the planning module, click on the "Planning Module" hyperlink at the bottom of the screen. (see Section 3.1.4 for further information.)

FY 1999 Appropriation: This field displays the FY 1999 amount for the nuclear material category/subcategory as included in the FY 2000 Congressional budget. This field is locked and cannot be edited at this time. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., MTHM).

FY 2000 Cong. Request: This field displays the FY 2000 amount as provided in the FY 2000 Congressional budget for the waste category/subcategory. This filed is locked and cannot be edited at this time. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., MTHM).

Decrement: Enter the FY 2001 amount for the nuclear material category/subcategory at the decrement (85% of target) funding level for the Operations/Field Office. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., MTHM).

FY 2001 Target: Enter the FY 2001 amount for the category/subcategory at the target funding level for the Operations/Field Office. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., MTHM).

Planning: FY 2001 planning nuclear materials are displayed from the planning module from IDMS and must be updated through the nuclear materials ("N.M.") tab at the project level in the planning module if changes are desired.

5.5 Spent Nuclear Fuel

Budget-level spent nuclear fuel data for FY 1999 and FY 2000 were collected through the Budget Data Template and are displayed in the budget module of IDMS consistent with the FY 2000 Congressional Budget Request. Planning numbers from AVS are displayed in the budget module to be used as a reference for establishing FY 2001 budget metrics.

Entering Spent Nuclear Fuel Performance Measures

Click on the blue "SNF" tab on the "Select Project" screen in the budget module to enter spent nuclear fuel performance measures. The system will display the Spent Nuclear Fuel Performance Measures table for the Appropriations Account/Program Account/PBS combination that you selected (see Section 5.0). The Spent Nuclear Fuel Performance Measures table contains the following fields:

Category/Subcategory: The category/subcategory combination(s) that is (are) displayed in this column are being displayed from what was seeded for this project in the FY 2000 Congressional budget.

FY 1999 Appropriation: This field displays the FY 1999 amount for the spent nuclear fuel category/subcategory as included in the FY 2000 Congressional budget. This field is locked and cannot be edited at this time. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., MTHM).

FY 2000 Cong. Request: This field displays the FY 2000 amount as provided in the Congressional budget for the spent nuclear fuel category/subcategory combination. This field is locked and cannot be edited at this time. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., MTHM).

There are new SNF measures for use in FY 2001. They are discussed in Section 3.1.5.

FY 2001 Decrement: Enter the FY 2001 amount for the spent nuclear fuel category/subcategory at the decrement (85% of target) funding level. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., MTHM).

FY 2001 Target: Enter the FY 2001 amount for the spent nuclear fuel category/subcategory at the target funding level. The amount is in valid units for this measure, as displayed in the "Category/Subcategory" field (e.g., MTHM).

FY 2001 Planning: FY 2001 planning spent nuclear fuel performance measures are displayed from the planning module of IDMS. Planning-level metrics are derived from AVS quantity data using a series of rules ("recipes").

5.6 Release Sites

This screen is where Operations/Field Offices will enter budget target release site assessment and cleanup completion dates at the budget target funding level for the formulation year. The list of release sites that is displayed on this screen is consistent with the list of release sites associated with this PBS at the geographic site level in the planning module.

The data collected for release sites through the budget module will be used to support the performance measures section of the FY 2001 Congressional budget. Only budget "target" dates will be updated in this screen.

Entering Release Site Budget Data

Click on the blue "Rel. Sites" tab on the "Select Project" screen in the budget module to enter release sites budget data. The system will display the Budget Release Sites table for the Appropriations Account/Program Account/PBS combination that you selected (see Section 5.0). The Budget Release Sites table contains the following fields:

Code: This field displays a unique release site code for the geographic site. This field cannot be edited/updated. See Section 3.2.4 for additional information.

Group: This field displays the unique natural grouping name to which the release site belongs. This field cannot be edited on this screen. See Section 3.2.4 for additional information.

Name: This field displays the field code and the descriptive name of the release site. This field cannot be edited on this screen. See Section 3.2.4 for additional information.

Planned Assessment Date: This field displays the planned assessment completion date for the release site. On this screen, this field is locked. The planned assessment completion date for each release site is displayed as it was entered on the "RS Cleanup" tab at the project level in the planning module.

Actual Assessment Date: This field displays the actual assessment date for the release site. See Section 3.1.6 for additional information.

At Target Assessment Date: This field displays the budget target assessment date for the release site. The "at target" assessment date should be based on current budget target levels for FY 2001. The "at target" assessment dates are only required through the formulation year (FY 2001). Any dates greater than FY 2001 in this field will be ignored. The "at target" assessment date must be the same as or BEFORE the "at target" completion date. This field can be edited on this screen. However, if a date prior to 2001 is seeded in this field, the system will not allow you to save over that number. This functionality helps maintain the integrity of the FY 2000 Congressional budget.

Planned Completion Date: This field displays the planned completion date for the release site. On this screen, this field is locked. The planned completion date for each release site is displayed as it was entered on the "RS Cleanup" tab at the project level in the planning module. See Section 3.1.6 for additional information.

Actual Completion Date: This field displays the actual completion date for the release site. See Section 3.1.6 for additional information.

At Target Completion Date: This field displays the "at target" completion date for the release site. The "at target" completion date should be based on current budget target levels for FY 2001. The "at target" completion dates are only required through the formulation year (FY 2001). Any dates greater than FY 2001 in this field will be ignored. The "at target" completion date must be the same as or AFTER the "at target" assessment date. This field can be edited on this screen. However, if a date prior to 2001 is seeded in this field, the system will not allow you to save over that number. This functionality helps maintain the integrity of the FY 2000 Congressional budget.

The following fields appear at the bottom of the screen:

Totals: After you click on the gray "Save Changes" button at the bottom of the screen, the system will calculate the total assessments and completions for FY 1999 and FY 2000 and target and planned totals for FY 2001. These totals are calculated from the "at target" dates that were

entered in the top part of the table through a series of rules ("recipes"). See Attachment E for a description of these rules. In addition, the system calculates the total planned assessments and completions for FY 2001. These totals are calculated from the planned dates for 2001, as entered in the planning module.

Decrement Totals: After the system has calculated the assessment and completion totals for FY 2001, you must enter the projected decrement amounts for FY 2001. This field should contain a single number (count).

Updating "At Target" Assessment and Completion Dates by Natural Grouping

Click on the gray "Update Natural Group" button at the bottom of the screen. IDMS will display a drop-down list of natural groupings. Select a natural grouping and enter the "at target" assessment date and/or the "at target" completion date. Click on the "Save Changes" button to change the "at target" assessment date and/or the "at target" completion dates for all the release sites in the natural grouping. If a release site is added to a natural grouping after a global update, the dates for that release site will not automatically update.

Viewing Detailed Release Site Information

Click on the release site "Code"hyperlink to view detailed information about the release site. This information cannot be edited on this screen. Edits to this information must be done in the planning module at either the geographic site level or the PBS level. For a detailed explanation of each of the fields on this screen and instructions on how to edit each field, refer to the "RS-Maintenance" screen (Section 3.2.4).

5.7 Facility Deactivation

This screen is where Operations/Field Offices will enter budget target facility deactivation completion dates at the budget target funding level for the formulation year. The list of facilities that is displayed on this screen is consistent with the list of facilities associated with this PBS at the geographic site level in the planning module. To add to/delete from the list of facilities associated with the Appropriations Account/Program Account/PBS combination you selected, you must go to the"Fac-Maintenance" tab (see Section 3.2.5) at the geographic site level in the planning module. To enter the planning module, click on the "Planning Module" hyperlink at the bottom of the screen.

The data collected for facilities through the budget module will be used to support the performance measures section of the FY 2001 Congressional budget. Only budget target dates will be updated in this screen.

Entering Facility Deactivation Budget Data

Click on the blue "Deactivation" tab on the "Select Project" screen in the budget module to enter facilities deactivation budget data. The system will display the Budget Facility Deactivation table for the Appropriations Account/Program Account/PBS combination that you selected (see Section 5.0). The Budget Facility Deactivation table contains the following fields:

Code: This field displays a unique release site code for the geographic site. This field cannot be edited/updated. See Section 3.2.5 for additional information.

Group: This field displays the unique natural grouping name to which the release site belongs. This field cannot be edited on this screen. See Section 3.2.5 for additional information.

Name: This field displays the field code and the descriptive name of the release site. This field cannot be edited on this screen. See Section 3.2.5 for additional information.

Planned Deactivation Date: This field displays the planned deactivation completion date for the facility. On this screen, this field is locked. The planned deactivation completion date for each facility is displayed as it was entered on the "Deactivation" tab at the project level in the planning module. To edit this information, select the "Planning Module" hyperlink at the bottom of the screen. See Section 3.1.7 for additional information.

Actual Deactivation Date: This information has not been previously requested. New FY 1999 actual deactivation dates will be updated during the FY 1999 execution process.

At Target Deactivation Date: Enter the budget "at target" deactivation date for the facility here. The focus is on identifying those facilities that will be deactivated at the target level of funding in FY 2001.
The fields at the bottom of the screen are identical to those in the budget release site screen (see Section 5.6). However, the calculated numbers are based on data entered in the facility deactivation screen. Please see Section 5.6 for detailed information about Totals, Decrement Totals, and Updating Assessment and Completion Dates by Natural Grouping.

Viewing Detailed Facility Deactivation Information

Click on the facility "Code"hyperlink to view detailed information about the facility. This information cannot be edited on this screen. Edits to this information must be done in the planning module at either the geographic site level or the PBS level. For a detailed explanation of each of the fields on this screen and instructions on how to edit each field, refer to the "Fac-Maintenance" screen (Section 3.2.5).

5.8 Facility Decommissioning

This screen is where Operations/Field Offices will enter budget "at target" facility decommissioning assessment and completion dates at the budget target funding level for the formulation year. The list of facilities that is displayed on this screen is consistent with the list of facilities associated with this PBS at the geographic site level in the planning module. To add to/delete from the list of facilities associated with the Appropriations Account/Program Account/PBS combination you selected, you must go to the facility maintenance ("Fac-Maintenance")

tab at the geographic site level in the planning module. To enter the planning module, click on the "Planning Module" hyperlink at the bottom of the screen.

The data collected for facilities through the budget module will be used to support the performance measures section of the FY 2001 Congressional budget. Only budget "at target" dates will be updated in this screen.

Entering Facility Decommissioning Budget Data

Click on the blue "Decommissioning" tab on the "Select Project" screen in the budget module to enter facilities deactivation data. The system will display the Budget Facility Decommissioning table for the Appropriations Account/Program Account/PBS combination that you selected (see Section 5.0). The Budget Facility Decommissioning table contains the following fields:

Code: This field displays a unique release site code for the geographic site. This field cannot be edited/updated. See Section 3.2.5 for additional information.

Group: This field displays the unique natural grouping name to which the release site belongs. This field cannot be edited on this screen. See Section 3.2.5 for additional information.

Name: This field displays the field code and the descriptive name of the release site. This field cannot be edited on this screen. See Section 3.2.5 for additional information.

Planned Decommissioning Assessment Date: This field displays the planned facility decommissioning date that was entered in the "Decommissioning" summery screen at the PBS level in the planning module. To edit this date, return to the planning module by clicking on the "Planning Module" hyperlink at the bottom of the screen. See Section 3.1.8 for additional information.

Actual Decommissioning Assessment Date: This field displays the actual decommissioning assessment date for the release site. This information is not currently updated in IDMS. See Section 3.2.5 for additional information.

At Target Decommissioning Assessment Date: This field contains the "at target" decommissioning assessment completion date for the facility. The "at target" decommissioning assessment completion date should be based on current target funding levels for FY 2001. "At target" decommissioning assessment completion dates are only required through the formulation year (FY 2001). Any dates greater than FY 2001 in this field will be ignored. The "at target" decommissioning assessment date must be the same as or BEFORE the "at target" decommissioning completion date. This field can be edited on this screen. However, if a date prior to 2001 is seeded in this field, the system will not allow you to

save over that number. This functionality helps maintain the integrity of the FY 2000 Congressional budget.

Planned Decommissioning Completion Date: This field displays the planned facility decommissioning completion date that was entered in the "Decommissioning" summary screen at the PBS level in the planning module. To edit this date, return to the planning module by clicking on the "Planning Module" hyperlink at the bottom of the screen. See Section 3.1.8 for additional information.

Actual Decommissioning Completion Date: This field displays the actual decommissioning completion date for the facility. This information is not currently updated in IDMS. See Section 3.2.5 for additional information.

At Target Decommissioning Completion Date: This field contains the "at target" decommissioning completion date for the facility. The "at target" decommissioning completion date should be based on current budget target levels for FY 2001. The "at target" decommissioning completion dates are only required through the formulation year (FY 2001). Any dates greater than FY 2001 in this field will be ignored. The "at target" decommissioning completion date must be the same as or AFTER the "at target" decommissioning assessment date. This field can be edited on this screen. However, if a date prior to 2001 is seeded in this field, the system will not allow you to save over that number. This functionality helps maintain the integrity of the FY 2000 Congressional budget.

The fields at the bottom of the screen are identical to those in the budget release site screen (see Section 5.6). However, the calculated numbers are based on data entered in the facility decommissioning screen. Please see Section 5.6 for detailed information about Totals, Decrement Totals, and Updating Assessment and Completion Dates by Natural Grouping.

Viewing Detailed Facility Decommissioning Information

Click on the facility "Code"hyperlink to view detailed information about the facility. This information cannot be edited on this screen. Edits to this information must be done in the planning module at either the geographic site level or the PBS level. For a detailed explanation of each of the fields on this screen and instructions on how to edit each field, refer to the "Fac-Maintenance" screen (Section 3.2.5).

5.9 Technology Deployments

This section provides performance measures information for the technologies that were identified for deployment as part of this PBS in Section 3.1.10. Absence of deployment data in this section indicates that no deployments were identified in the planning module for the PBS. To add deployments for this PBS, you must go to the planning module of

IDMS and follow the instructions in Section 3.1.10. This section is consistent with Requirements 1008 and 1020.

Entering Technology Deployment Budget Data

Click on the blue "Deployments" tab on the "Select Project" screen in the budget module to enter technology deployment performance measures. The system will display the Technology Deployments table for the Appropriations Account/Program Account/PBS combination that you selected (see Section 5.0). The Technology Deployments Performance Measures table contains the following fields:

Technology Key: This field displays the unique technology key associated with the technology selected. This number is associated with the technology by EM-50 and cannot be updated in IDMS.

Name: This field displays the list of technologies that were selected to be deployed for this PBS in the planning module (Section 3.1.10). If a technology needs to be added or deleted, return to the planning module and follow the instructions outlined in Section 3.1.10 of this guidance. Technologies cannot be added or deleted in the budget module.

Planned: This field displays the fiscal year in which the technology will most likely be deployed. For each technology, this date was entered in the planning module and cannot be updated in the budget module. Return to the planning module and follow the instructions outlined in Section 3.1.10 of this guidance to change the planned date for a technology. Dates are displayed as a four-digit year (e.g., 2002).

Deployment Actual: This field displays the actual deployment date, if available. This information cannot be updated in IDMS. Dates are displayed as a four-digit year (e.g., 2002).

Forecast (At Target): This field displays the forecast (at target) deployment date for the technology. The forecast (at target) deployment date should be based on current budget target levels for FY 2001. The forecast (at target) deployment dates are only required through the formulation year (FY 2001). Any dates greater than FY 2001 in this field will be ignored.

Status: This field displays "P" or "D" to indicate the level of commitment from the PBS manager. The letter "D" for Deployment Commitment indicates that the PBS Manager has a written plan such as a Record of Decision (ROD) to deploy the technology. The letter "P" for Potential Deployment indicates that the PBS Manager is considering use of the technology, but has not made a final decision. To change this level of commitment, you must return to the PBS planning module and follow the instructions in Section 3.1.10 of this guidance.

If a "D" is entered in this field and the forecast (at target) deployment date is either FY 1999 or FY 2000, the technology will be automatically counted toward the Field Office Manager's corporate performance

measure for technology deployment. The performance metrics are based on a numerical count of technologies only.

Decrement: In this field, enter the projected decrement (85% of target) total number of deployments for FY 2001. This field should contain a single number (count).

Planning: This field is automatically calculated by the system. After you click on the gray "Save Changes" button at the bottom of the screen, the system will calculate the total planned deployments for FY 2001 based on the planned dates provided for deployments in the deployments list.

Forecast (At Target): This field is automatically calculated by the system. After you click on the gray "Save Changes" button at the bottom of the screen, the system will calculate the total forecast (at target) deployments for FY 2001 based on the forecast (at target) dates provided for deployments in the deployments list.

6.0 AVS Guidance

6.1 Stream Disposition Guidance Overview

This technical guidance provides detailed instructions, data definitions and relationships to support collection and maintenance of the IPABS-required stream disposition data (SDD). It is part of the overall guidance for the Spring 1999 update of the Environmental Management (EM) Corporate Database. This overall guidance consists of:

Guidance for the Spring Update to the EM Corporate Database: Life-Cycle Planning Data; FY 2001 Budget Formulation Information; and Paths to Closure (Rev. 2, December 21, 1998) will be referred to as **"12/21/98 Guidance"** throughout this document.

- *Guidance for the Spring Update to the EM Corporate Database: Life-Cycle Planning Data; FY 2001 Budget Formulation Information; and Paths to Closure* (Rev.2, December 21, 1998).
  - High-level programmatic and policy guidance and important National planning assumptions
- *Technical Guidance and Specific Instructions for Completing the Spring 1999 Update of the EM Corporate Database*
  - PBS and Site-Level Data & Interim Data Management System (IDMS) User Guide
  - Stream Disposition Data & Analysis and Visualization System (AVS) User Guide

Field-approved Spring 1999 Corporate Data must be available by April 15, 1999, to support Headquarters needs, including:

- *Paths to Closure Report*
- FY 2001 budget formulation and justification
- EM performance planning and measurement
- Complex-wide technical analyses

Chapter 9 of the "12/21/98 Guidance" describes the Headquarters data uses.

This technical SDD guidance is organized into five main sections:

Stream Disposition Data Overview

6.1 Stream Disposition Data Overview provides introduction and background information.

Suggested SDD Maintenance Approach

6.2 Suggested SDD Maintenance Approach outlines how SDD should be reviewed and updated, including the best order in which to proceed.

Detailed Instructions

6.3 Detailed Instructions provides technical guidance and instructions for completing update of SDD.

Glossary of Key Terms

6.4 Glossary of Key Terms defines key terms used.

Look Up Tables/Attachment

Attachment B contains the Look Up Tables, which provide the "pick lists" of standard valid values for certain data fields.

6.1.1 IPABS Stream Disposition Data (SDD) Requirements

IPABS: Integrated Planning, Accountability, and Budgeting System

The Integrated Planning, Accountability, and Budgeting System (IPABS) serves as the unifying Environmental Management (EM) system for planning, budget decisions, oversight of projects, and actions taken to meet EM program objectives. The stream-level disposition data elements required to support this Corporate Data system have been identified through an extensive field review and concurrence process. The elements are documented in the *IPABS-IS Data Requirements* (12/18/98) and are now managed through a formal change control process under the EM Chief Information Officer. This technical guidance is to be used in the interpretation and implementation of the following IPABS Data Requirements:

- 1017 Contaminated Media/Waste Inventory and Disposition Information
- 1018 Programmatic Risk
- 1021 Treatment/Disposal Systems
- 1029 Stream Characteristics Information
- 1500 Stream-level Transportation Data
- 1521 Complex-wide Type B Packaging Inventory

Stream Disposition Data

Stream Disposition Data document the planned baseline disposition paths for waste, contaminated media and spent nuclear fuel. These baseline disposition paths define the work scope required to move waste, media, and spent fuel from their current condition to their "end state".

Various levels of uncertainty in baseline disposition plans can be expressed as "TBD" (To Be Determined) data entries for a stream's Source Activity (ER Strategy only), Destination Activity (e.g., treatment), Destination Site, or Destination Treatment, Storage, and Disposal (TSD) System. The "12/21/98 Guidance" requires that all disposition destination information (especially inter-site transfers) must be consistent with existing DOE Policies, Records of Decision, and agreements with stakeholders.

Disposition Maps

Disposition Maps are graphical representations (reports) of a site's baseline planning data related to managing wastes, contaminated media, and spent nuclear fuel. They show the planned progression from current

status through treatment and disposal. Data are included for each step in the disposition path. A stream is dispositioned when it enters the next TSD system or is transferred to another site, program, or waste type. Final disposition (end state) occurs when a stream is disposed, recycled, or otherwise no longer requires active management.

Baseline Disposition Maps were adopted to support integration activities and the *Draft 2006 Plan* (now *Paths to Closure*). They were linked to underlying quantity information collected in the Consolidated PBS Quantity Table (CPQT) spreadsheet. Information on the hand-drawn disposition maps (e.g., source and destination of waste streams) has been integrated with the CPQT data to form the SDD portion of the EM Corporate Database. The Analysis and Visualization System (AVS) was created to manage the SDD and automatically draw disposition maps from the baseline planning data.

Scope of Spring 1999 Update

The Spring 1999 IPABS SDD update is intended to capture data specified in the IPABS requirements listed above for the following (unclassified data only):

- Stream-level planning data for FY 1999 through the life cycle for each individual stream
- FY 1998 year-end stream quantities ("actuals")
- Planned disposition activities for
    - EM waste
    - EM contaminated media
    - DOE spent nuclear fuel
    - DOE newly generated waste, pending further discussions among EM, Defense Programs (DP), Nuclear Energy (NE), and Science (SC), previously known as "Energy Research"
- There is an on-going separate data collection for information on buried TRU waste. The summary-level information provided here should be consistent with that being developed for the more detailed buried TRU waste data call.

6.1.2 Updating SDD Using the Analysis and Visualization System (AVS)

AVS: Analysis and Visualization System

AVS is one of the web-based systems being used for the Spring 1999 update. It is being used to update all stream-level components of the EM Corporate Database, as well as TSD System and programmatic risk (disposition barrier) information. Project (PBS) and site-level IPABS data are being collected through the Interim Data Management System (IDMS).

Development of the AVS was based on lessons learned from the 1998 *Paths to Closure* process, which relied on manual drawing of disposition maps and collection of underlying quantity data using spreadsheets (CPQT). AVS was developed with the following goals in mind:

- Simplify and improve the quality of data entry (e.g., through use of valid value "pick lists" and internal logic checks)
- Improve configuration control by automatically producing maps directly from the data
- Improve the ability to coordinate proposed intersite transfers by making data visible to other sites and providing intersite data comparison reports

An updated *User's Guide to the AVS* is being issued concurrently with this technical guidance. The user's guide provides complete information on system access, hardware, and software requirements, system use, and whom to contact for technical assistance.

AVS can be accessed from either the EM home page or at http://id.inel.gov/avs/. The tool is intended for initial use by the Department. Members of the CIO Team act as points-of-contact for assignment of user-IDs and privileges.

A provision was made for sites to provide the initial FY 1999 Spring update of their SDD through "batch input" instead of AVS. This is arranged on a site-specific basis through the CIO. Site review and approval of their data after the batch input is accomplished through AVS.

6.1.3 Links to IDMS

In addition to stream-level data, EM collects data on other levels including the Project, Geographic Site, Site Summary, and Operations/Field Office levels. Stream-level data are often the starting point for these summary-level data. It is critically important that field teams working on various levels of data coordinate their efforts and maintain continuity with the stream-level basis for various summary data. For example, three data elements collected at the stream level are linked to the IDMS data:

Critical Closure Path Link

- Is Stream on Critical Path(?) identifies whether the disposition of a specific stream is on a site's critical closure path. This new IPABS data requirement is designed to highlight the linkage (and eliminate potential disconnects) between stream-level activities and site-level closure plans.

Science/Technology Needs and Focus Area Work Package Link

- Science/Technology Needs and Focus Area Work Package links identify streams with technology-related disposition barriers (i.e., a high programmatic risk score for technology) that also have associated technology needs and ongoing work efforts in support of deploying needed technologies and lowering the programmatic risk.

Stream-PBS Link

- Stream-PBS links identify the Project (and therefore the Project Manager and Project/Program) responsible for storing inventories and/or dispositioning each stream. This link allows a comparison of stream-level planning data and project-level performance measures.

Performance Measures

Sites should be mindful of the relationship between stream-level baseline data (updated through AVS) and project-level budget/performance measures data (updated through IDMS). While stream-level data are not a performance measure, stream-level quantity data are rolled up for comparison with PBS-level waste performance measures. Operations/Field Offices are required to understand differences between baseline ("rolled up SDD") quantities and project-level performance targets in any given year. See page 4-9 of the "12/21 Guidance" for more details on this important data relationship.

6.1.4 Headquarters Role

Programmatic Review March 15 - April 15

Headquarters and national programs will be able to use AVS to view and report the data provided by the sites. Updated SDD will undergo extensive programmatic and cross-site review from March 15 through April 15, 1999. This review will focus on:

- Ensuring data completeness
- QC/validation of the data
- Facilitating resolution of intersite disconnects:
  - "qualitative" disconnects, i.e., receiving site proposed by a shipping site does not acknowledge receipt
  - "quantitative" disconnects, both shipping and receiving sites acknowledge transfer but disagree significantly on volume (more than 10%)
  - "schedule" disconnects - shipping site proposes to ship before or after receiving TSD system operational dates (e.g., proposing shipment to WERF three years after closure date)

6.1.5 Schedule

Key dates related to the Spring 1999 update of SDD include:

- January 15 — AVS tool and instructions available to begin updating SDD
- March 15 — Draft SDD due in AVS (sites and HQ begin QC)
- April 15 — Final SDD due in AVS (HQ "freezes" 4/15 version)--except Stream Characteristic data (Section 6.3.5) which are due September 30, 1999
- April 30 — Updates to site summaries for the national *Paths to Closure* due
- May 14 — Draft site *Paths to Closure* reports due with disposition maps
- June — Site and national *Paths to Closure* issued with disposition maps

Data will be "frozen" on April 15

On April 15, a version of the data will be "frozen" for budget development and for writing the *Paths to Closure* document. Data can be updated at any time in the "current working version" of the data. Frozen versions cannot be changed. Although AVS will always have a working version of data available for update, the site will be measured against the frozen version (due 4/15/99).

6.2 Suggested Stream Disposition Data (SDD) Maintenance Approach

The following steps outline an efficient approach to reviewing and updating SDD, including the best order in which to proceed:

1. Print a set of disposition maps. Initially, these maps reflect the latest version of each site's SDD. These data reflect information shown on the disposition maps and the underlying quantity information (formerly known as CPQT data). The technical content of maps is controlled directly by editing working data.

2. Review all treatment/processing and disposal systems (TSD Systems) appearing on the maps.

Update TSD System Data

A TSD System is a discrete treatment or disposal capability represented on a disposition map by a box specifying the function to be performed on the stream(s) targeted to it.

Review current maps to ensure all needed TSD Systems are in the data set. Revise the TSD System site description as necessary.

Verify that each stream is targeted to an appropriate TSD System (i.e., a disposition end point for each stream.) Add new TSD Systems as appropriate. Editing the balance of the stream disposition data will be easier when all of the necessary TSD Systems are represented in the database.

3. Review/update/confirm SDD.

Update Stream Data

A <u>Stream</u> is a group of materials, media, or wastes having similar origins, waste type, physical and contaminant characteristics, management requirements (i.e., same disposition path), or barriers to disposition. Streams are stored or dispositioned by only one EM project (i.e., PBS) in a given year. Each management step depicted on a disposition map (i.e., each arrow) is a separate stream. A stream is dispositioned when it enters the next TSD System, is transferred to another site, or is combined with a "parent" stream.

For example, one stream on a Baseline Disposition Map might comprise various types of acidic waste in inventory that must be neutralized in an on-site treatment facility prior to any other management step. The neutralized sludge resulting from that process would be a new stream with different characteristics and management requirements. It must go through a stabilization process before it can be disposed. The stabilized, neutralized sludge resulting from that process is another new stream, now ready for disposal. In this example, three separate streams (acidic waste; secondary waste sludge resulting from treatment; and stabilized, disposal-ready sludge) with different management requirements are dispositioned into three separate processes (neutralization, stabilization, and disposal). Each stream is depicted separately on a disposition map and represents a unit of work scope to be completed sometime during the life of an EM project.

To facilitate integration and alignment of Projects, Project Scope, and Project Cost, no more than two projects at a time may be associated with a given stream, one project managing its storage (inventory) and one managing its disposition (e.g., treatment, disposal). For example, an acidic waste stream in inventory might be managed (stored) by Project A. Project B might be responsible for sending the acidic waste through the neutralization process. However, no other project should share responsibility (with Project A) for storing the acidic waste or share responsibility (with Project B) for seeing that the acidic waste gets neutralized. No more than one project can be associated with storage or disposition of a stream in the same year. Any number of streams can be managed under a given

project. (Project A could be responsible for managing all aspects of the three streams from storage through neutralization, stabilization, and disposal.)

Review all of the streams appearing on each map. Add, modify, or delete streams as appropriate, based on the following considerations:

- Do the SDD and disposition maps reflect the entire scope of work for the ER program, including anticipated remedial action on buried TRU waste and contaminated soil?
- Do the existing streams still conform to the basic definition of a stream (i.e., groups of media, waste, or SNF that have similar origins, management requirements, and disposition barriers) and are managed by only one storage or disposition project at a time?
- Do all components of each stream still go through the same TSD System? Or are there new/improved characterization data or recent planning decisions that might define new streams or disposition paths?

4. Update the PBS Links and annualized addition and disposition volumes.
5. For ER streams, update the ER-specific data next.
6. Where DOT regulations apply, provide the annualized transportation data.
7. Identify and score any Programmatic Risks associated with the stream disposition or facility limitations.
8. Provide large object data and site-level Type B Package information.
9. Finally, begin collecting and summarizing Stream Characteristics Data.

6.3 Detailed Instructions

The following sections provide the specific technical guidance and instructions for completing an update of SDD. The beginning of each section includes a graphic, linking the detailed instructions with the key associated AVS screen.

6.3.1 TSD System Data

This section discusses the data elements applicable to TSD Systems. For purposes of the SDD, a unique TSD System is defined by the **facility** that houses the system and the **function, or technology**, performed by the system. For example:

- WERF/Incineration
- WERF/Stabilization
- RWMC/Disposal

Modify TSD System

- Site
- TSD System Record #
- Field Id
- TSD System Name
- TSD System Technology
- TSD System Site
- TSD System Owner
- DOE Management Program
- Disposition Map
- Operating Status
- Operating Schedule

AVS Seeding Notes

As discussed in Section 6.1.1, the SDD seeded in AVS was created by integrating the stream data collected in FY 1998 via the CPQTs with the TSD System information as portrayed on the hard copy disposition maps. The CPQTs identified the streams and their associated quantities as portrayed on the disposition maps. However, the CPQTs did not identify the source, if applicable, and destination TSD systems associated with the streams. Integration of the stream and TSD system data involved developing the list of TSD systems and establishing the linkages to the streams as portrayed on the maps.

The TSD system data seeded into AVS is comprised of the list identified during the integration process. A copy of this initial list is provided in **Table B-2** *of Attachment B. Because the TSD system "boxes" on the disposition maps were essentially free-form text (i.e., not standardized), certain conventions were developed to generate the initial list per the standardized structure of the TSD system module. In general, the TSD systems in the initial list can be categorized as follows:*

Specific DOE and Commercial Systems

These generally familiar systems are located at DOE sites (e.g., TSCA/Incinerator) and commercial sites (e.g., DSSI/Incinerator, Envirocare/Stabilization). These systems were unambiguously identified on disposition maps and could be translated directly to the standardized structure of the TSD system module (i.e., System Name/Technology).

Unspecified DOE Systems

Some TSD system "boxes" representing on-site dispositions only indicated the technology to be applied (e.g., Stabilization) but not a specific facility housing the technology. These unspecified or

generically referenced systems are uniquely identified in the initial TSD system list (e.g., Unspecified-2/Stabilization). The initial TSD system list includes one or more of these "unspecified systems" for most sites. More specific references to the name of the system/facility can generally be provided during the data update process, except where they are true TBDs. It is understood though that treatment is not always performed within a specific facility (e.g., in-drum stabilization of sludges at the site of generation). In these instances, "Generator Treatment" might be an appropriate system name.

Unspecified Commercial Systems

Similar to the unspecified DOE systems, some "boxes" representing dispositions at off-site, commercial locations indicated the technology but not the specific commercial facility. These generically referenced commercial systems are also uniquely identified in the initial TSD system list (e.g., Commercial-8/Incineration).

TBD Systems

These items reflect boxes on maps that were specifically labeled "TBD", whether or not more detail was included about the treatment or disposal function. When multiple (undifferentiated) TBD systems were observed on the same map, they were assumed to be unique disposition alternatives and their unique identities were preserved (e.g., TBD-3).

Caution: Do not delete system records that may be referenced by other sites without first consulting potential shippers or reviewing the appropriate shipping/receiving reports.

The following data fields are used to describe TSD Systems in the Corporate Database.

Site

- Site is the site at which the TSD system is located. As portrayed in the upper left on the AVS screen it is not an editable field.

TSD System Record #

- TSD System Record # is not edited by the field. It is a unique TSD System record identifier assigned by the data system. New systems defined by the field are assigned the next available, sequential record number. Deleted system record numbers are retired.

Field Id

- Field Id is an ***optional*** data element. It is an identifier assigned by the reporting site, if desired, to facilitate recognition of data. (limited to 20 characters). Where appropriate, use generic names, such as "generator treatment" to distinguish the TSD system from "TBD."

TSD System Name

- TSD System Name is the name assigned by the field to describe the facility that houses the treatment or disposal system (limited to 40 characters).

TSD System Technology

- TSD System Technology is the function, or technology, employed by a treatment or disposal system.

  The AVS includes a pick list of technologies. This initial list **Table B-3** of Attachment B) was developed based on the technologies identified in the "boxes" on the disposition maps. Also, note the following:

  - For disposal systems, the technology/function is always Disposal.

  - "Treatment TBD" is a generic option to be used where the specific treatment required is not yet known.

  - Some streams are targeted to commercial TSD systems for "treatment and disposal". To accommodate this, the technology list includes entries indicating both a treatment technology and disposal (e.g., Stabilization/Disposal).

TSD System Site

- TSD System Site is the site where the TSD System is located.

TSD System Owner

- TSD System Owner identifies whether the TSD system is DOE or commercially owned/operated. Valid responses are DOE, Commercial, and TBD.

DOE Managing Program

- DOE Managing Program identifies, for DOE owned/operated TSD systems, the responsible DOE management program.

  The AVS includes a pick list of valid responses (**Table B-4** of Attachment B).

Disposition Map

- Disposition Map identifies, for TSD systems located at DOE sites, the disposition map (e.g., MLLW, ER) on which the system appears for that site.

Operating Status

- Operating Status identifies whether the TSD system exists or is planned, and, if it exists, whether it is operating. A system that is funded and is under construction exists but is not yet operational.

Operating Schedule

- Operating Schedule identifies the anticipated operational date for a planned or non-operational TSD systems and the planned closure date for all EM-managed systems. Note that the anticipated

operational date does not apply to systems that are currently operating (i.e., historical start date is not requested).

6.3.2 Stream Data

The various stream-level data elements are addressed within this section as well as Sections 6.3.4, 6.3.4.1, 6.3.4.2, 6.3.5, and 6.3.6.

Modify Stream

- Site
- Disposition Map
- Stream Record #
- Stream Name
- Field Code
- Waste Type
- MPC Code
- Inventory Status
- Stream is on critical closure path

6.3.2.1 Stream Identification

These data elements serve primarily to identify the stream and provide certain key descriptive information.

Site

- Site is the DOE site reporting the stream (i.e., "Reporting Site"). It is automatically assigned by the data system and is not editable.

Disposition Map

- Disposition Map specifies the disposition map (i.e., ER, HLW, LLW, MLLW, TRU, or SNF) on which the stream originates.

Stream Record #

- Stream Record # is a unique, five digit identifier assigned to each stream by the data system. It cannot be edited. When a new stream is reported, it is assigned the next sequentially available number. If a stream is deleted, the associated record number is retired.

Field Code

- Field Code is an ***optional*** field to allow reporting of a site-specific identifier that may be assigned to the stream. The purpose of this field is to facilitate site recognition of data. Note that this field is limited to 12 characters to allow printing on the disposition map.

AVS Seeding Notes

Field Codes in the seeded data are the IDs used to identify the streams on the current, working disposition maps (i.e., Map IDs). Because of the 12 character limit, edits were required to some of these IDs. Typically, the edits consisted of merely dropping a site identifier. For example, a Map ID of "ANLE-MLLW-0056A" was edited to "MLLW-0056A".

Some sites included a second stream identifier in the left margin of their disposition maps. To avoid having two site identifiers for the same stream, these identifiers were not seeded in the AVS. If desired, additional identifiers can be retained in the comment field.

Stream Name

- Stream Name is the name of the stream assigned by the reporting site (limited to 100 characters).

Waste Type

- Waste Type is the standard DOE classification of the waste, media, or SNF stream. The AVS provides a pick list of valid values (**Table B-5** of Attachment B).

MPC Code

- MPC Code is the treatability group "matrix parameter category" code that best describes the overall, bulk physical/chemical form of streams per the *DOE Waste Treatability Group Guidance (DOE/LLW-217).* It is only applicable to waste/media streams. Beginning with general, or broad, categories and progressing to more specific categories, the treatability group guidance presents a hierarchical array of MPCs. For purposes of these data, a subset of the MPCs from the upper portion of the array is being used. These are coded into the AVS as a pick list. This list, including the MPC definitions, is provided in **Table B-6** of Attachment B.

  As discussed in *DOE Waste Treatability Group Guidance*, the most specific MPC that can be supported by available characterization data on the stream should be assigned. For example, a stream consisting of ash from incineration would be assigned "S3110 - Inorganic Particulates" as opposed to "S0000 - Solids" or "S3000 - Homogeneous Solids" or "S3100 - Inorganic Homogeneous Solids".

AVS Seeding Notes

The MPC Code is a new SDD requirement and replaces the Wastewater and Media Type fields used in the FY 1998 data. In seeding the AVS from the FY 1998 data, the MPC code was left blank for all streams except the following:

- *"L1100 - Wastewaters" was assigned to streams indicated as wastewaters in the FY 1998 data that were not also indicated as Ground/Surface Waters in the Media Type field.*
- *"L1300 - Ground/Surface Waters" was assigned to streams indicated as such in the Media Type field of the FY 1998 data.*

SNF Inventory Status

- Inventory Status identifies, for performance measure purposes, the inventory status of SNF streams. The AVS includes a pick list of valid responses. This list is provided in **Table B-7** of Attachment B.

Stream is on critical closure path

- Stream is on critical closure path identifies (yes or no) whether dispositioning the stream is on the reporting site's critical closure path.

AVS Seeding Notes

This is a new SDD requirement. For seeding purposes, the default response for all streams was "No".

Comments

- Comments is an ***optional*** memo field where sites can provide additional relevant stream information.

6.3.2.2 Stream Source and Disposition Path Description

These data elements serve to describe the source and disposition path of the stream and are the key factors in determining the construct of disposition maps.

Modify Stream

- Source Activity
- Source Site
- Source TSD System
- Destination Activity
- Destination Site
- Destination TSD System
- Destination Parent Stream
- DOT Regulations Apply

Source Activity

- Source Activity characterizes, from the reporting site's perspective, the quantity additions to the stream. The source activity also identifies the general ex situ response strategy for ER waste streams (the specific in situ response strategy for ER media streams is identified by the destination activity).

  The AVS includes a pick list of valid source activities. A copy of the list, including guidance for selecting the appropriate response, is contained in **Table B-8** of Attachment B.

Source Site

- Source Site is the site at which future quantities of the stream originate. The source site is always the reporting site except for streams with a Source Activity of "Off-Site Receipt". The AVS includes a pick list of sites. A copy of this list is provided in **Table B-1** of Attachment B.

Source TSD System

- Source TSD System is the TSD system from which secondary streams emanate and is only applicable if the Source Activity is "Process Output/Residue".

  The AVS includes a pick list which will display the TSD Systems located at the Source Site. **Table B-2** of Attachment B provides a copy of the initial TSD System list for all sites. As discussed in Section 6.3.1, the initial TSD System list seeded into AVS was developed based on the FY 1998 hard copy disposition maps. Any necessary modifications to the list must first be made via the Modify TSD System Screen in the AVS.

Destination Activity

- Destination Activity is the management activity by which the stream will be dispositioned (e.g., treatment or disposal).

The AVS includes a pick list of valid destination activities. A copy of the list, including guidance for selecting the appropriate response, is contained in **Table B-8** of Attachment B.

If "On-site Placement" or Return to Remediation Unit" is selected, note in the stream comment field whether or not access or institutional controls also are required.

Destination Site

- Destination Site is the site where the stream will be dispositioned. The AVS includes a pick list of sites. A copy of this list is provided in **Table B-1** of Attachment B. Following are guidelines for selecting the appropriate response.

On-Site Disposition
Select the reporting site.

Off-Site Disposition
Provide the same level of detail that is reflected in the baseline disposition plan. For example, if the stream is planned for disposition at a specific DOE (e.g., Hanford) or commercial site (e.g., Envirocare), then select that site. If the stream is planned for disposition at a DOE or Commercial site which is yet to be determined, select "DOE Site - TBD" or "Commercial Site - TBD" as appropriate. If it has not been decided whether the disposition will be at a DOE or Commercial site, select "TBD/Off-Site".

(**Note**: *Contact Jonathan.Kang@em.doe.gov if additional, specific Commercial sites must be added to the list*).

On-Site/Off-Site Unknown
If it has not been decided whether the disposition will be on- or off-site, select "TBD - To Be Determined".

Destination TSD System

- Destination TSD System is the treatment or disposal system where the stream will be treated, disposed, or otherwise dispositioned.

The AVS includes a pick list which displays the TSD Systems maintained in the SDD (see Section 6.3.1). As discussed in Section 6.3.1, the initial TSD System list in AVS was developed from the FY 1998 hard copy disposition maps. Any necessary modifications to the list must first be made via the AVS Modify TSD System Screen. A copy of the initial list is provided in **Table B-2** of Attachment B.

Selection of the destination TSD System is dependent upon the Destination Activity and Destination Site as follows:

Destination Activity – Certain destination activities do not require identification of a destination TSD system. These activities are Recycle, NPDES Discharge, No Action, Incorporated by Parent Stream, and To Be Determined.

Destination Site – For destination activities other than those specified above, the AVS pick list will only display the TSD Systems that are located at the Destination Site as follows:

- If the Destination Site is a specific DOE (e.g., Hanford) or commercial (e.g., Envirocare) site, the pick list will only display the TSD Systems located at that site.

- If the Destination Site is "Commercial - TBD", the pick list will only display the generic, commercial TSD systems.

- If the Destination Site is "DOE Site - TBD", "TBD/Off-Site", or "TBD - To Be Determined", the pick list will only display the generic, TBD systems.

Destination Parent Stream

- Destination Parent Stream identifies the Stream Record # of the parent stream for streams with a Destination Activity of "Incorporated by Parent Stream". The AVS includes a pick list which will display the streams reported by the site.

This disposition option was requested by the field to accommodate situations where waste or media stream inventories are physically and inseparably commingled prior to going to the next step in the disposition path. The only situations in which "Incorporated by Parent Stream" should be considered a valid option is when the nature of the commingled inventories makes it is impossible or impractical to determine what part of child-stream's commingled inventory is being dispositioned in a given year (i.e., annual disposition volumes for the stream cannot be estimated and reported). Though the generation rate (annual additions) of the child stream is known and should be reported, it is only the disposition rate of the commingled parent stream's inventory can be quantified and reported.

When selecting "Incorporated by Parent", the annual additions for the parent stream must reflect both the generation rate of the parent as well as the generation rate of any child streams that are being commingled with the parent. The annual addition data for child streams are reported for clarification and/or information purposes only, they should be excluded from any summary report calculations, as their volumes are already included in the parent stream data (which should be used in summary analyses). Similarly,

the storage and/or disposition PBS information for the child stream is not applicable, as the PBS(s) managing the parent stream are now implicitly responsible for managing the commingled child-stream volumes.

DOT Regulations Apply

- DOT Regulations Apply identifies (Yes/No) whether the disposition path of the stream involves transportation that is subject to Department of Transportation (DOT) regulations. This typically pertains only to off-site shipments, but some on-site transfers could involve travel on public highways and be regulated by DOT. If the response is "Yes", additional details concerning transportation of the stream are required (see Section 6.3.4.1).

AVS Seeding Notes
This is a new SDD requirement. For seeding purposes, the default response for all streams was "No".

6.3.2.3 Documenting TBD Disposition Paths

Four data elements can be used to show disposition plans that are TBD.

Uncertainty regarding stream disposition can be reflected in one or more of four stream disposition data elements: the **Destination Activity**, **Destination Site**, **Destination TSD System**, and **System Technology**. All four data elements can be "TBD", but a logical hierarchy exists: if Activity is TBD, then Site and TSD System should also be TBD. Similarly, if the Site is TBD, then the (specific) TSD System also is TBD. In this case, the required/desired technology (e.g., macroencapsulation) may or may not be known. A TBD system can be identified with a macroencapsulation capability. Uncertainty in these data elements may be recorded in the data as follows:

Destination Activity=TBD

Destination Activity = TBD: The project manager has insufficient stream characterization data or planning information to identify the requirements for stream treatment and/or disposal. In this case, the disposition site, technology, and facility are probably "TBD" also.

For ER Streams Only -- Source Activity = ERTBD: The project manager has insufficient characterization data or planning information to identify the appropriate restoration response strategy for the contaminated media. In this case, the disposition activity, site, technology and TSD System (if appropriate) should also be TBD.

Destination Site = TBD

Destination Site = TBD: The stream treatment and/or disposal requirements are known, but the disposition site (on-site or off-site) has not been decided or formally agreed to by key stakeholders.

Site = Off-site TBD

Site = Off-site TBD: All on-site disposition options have been evaluated and eliminated from further consideration. The baseline disposition plan is to ship the stream off site. Both DOE and Commercial facilities are still being considered.

Site = DOE

Site = DOE: The baseline disposition plan is to ship the stream off site. All Commercial disposition options have been evaluated and eliminated from further consideration. A specific DOE site/facility has not been designated or agreed to.

Site = COMM

Site = COMM: The baseline disposition plan is to ship the stream off site. All DOE disposition options have been evaluated and eliminated from further consideration. A specific Commercial site/facility has not been designated or agreed to.

Destination Facility = TBD

Destination Facility = TBD: The disposition site has been decided, but the specific disposition facility is either not yet decided or technical details regarding the receiving schedules, volumes, approvals, etc., have not been formally agreed to by all parties. Disposition barriers may also be associated with facility equipment limitations, acceptance criteria, permitted capabilities/capacities, etc., that make the facility (at least temporarily) unavailable and therefore TBD, pending resolution of the barrier issues.

Disposition Technology = TBD

Disposition Technology = TBD: The disposition site and facility may (or may not) have been decided (definitely), but the specific disposition technology has either not been identified or technical details or approvals have not been formally agreed to by all parties. Disposition barriers associated with waste/equipment limitations, capabilities, economics, etc., may make the technology (at least temporarily) unavailable and therefore TBD, pending resolution of the technical issues.

It is critical that all baseline plans (especially those involving intersite transfers) be consistent with existing DOE policies, records of decision, and formal agreements with regulators and stakeholders. Any plans that are not fully in accord with the above are officially yet To Be Determined. Status of TBDs is a specific topic for site discussion in each site's *Paths to Closure* submittal.

6.3.2.4 ER Stream-Specific Data

These data fields apply only to streams within the scope of the ER program (i.e., streams that originate on an ER disposition map).

ER Stream Data

- Remaining Contaminated Media Volume
- Approved Volume
- Future Volume
- Future Regulatory Process

Remaining Contaminated Media Volume

- Remaining Contaminated Media Volume is an estimate of the volume (M3) of in-place, contaminated media associated with the stream that is to be addressed via the response strategy. Note that this field does not apply to ER streams for which the Source Activity is "Process Output/Residue" (see Section 6.3.2.2). Also, note the following;

  - A value need only be reported for streams to be managed with in situ, no action, or access/institutional control response strategies. For streams with ex situ response strategies, the value will be automatically calculated based on the total of the life-cycle annual addition volumes.

Approved Volume

- Approved Volume is the portion of the stream volume associated with approved cleanup decisions.

Future Volume

- Future Volume is the portion of the stream volume requiring future cleanup decisions.

  Stakeholders have requested that sites estimate the volume of each ER stream associated with approved decisions and the volume for which future cleanup decisions are required. For each stream, breakout the entire scope of the stream, consisting of both the remaining contaminated media in place and the inventory, into these two volumes. Recall that for streams with ex situ response strategies, the remaining contaminated media in place volume is equal to the total of the annual addition (collection) volumes entered on the Annual Data screen.

Approved + Future = Total Life Cycle Volume

As a logic check, ensure that for streams addressed with in situ, no action, or access/institutional control response strategies, the sum of the approved and future volumes equals the contaminated media in place volume. For streams with ex situ response strategies and for secondary streams, ensure that the sum of the approved and future volumes equals the sum of the annual disposition volumes. The sum of the annual disposition volumes, the sum of the annual addition volumes, and the 1998 inventory entered previously through the Annual Data screen are provided on this screen for reference.

If the correct value for either of these fields is zero, enter "0" in the field, rather than leaving the field blank. The AVS interprets a blank response as a "TBD" volume, and will display "?M^3" on the ER disposition map for this stream. A TBD volume is appropriate only when the entire stream volume is not known.

AVS Seeding Notes

The Approved Volume, Future Volume, and Future Regulatory Process (below) are new SDD requirements. The fields were seeded with data collected during an ER supplemental data collection effort in September and October 1998.

Future Regulatory Process

- Future Regulatory Process is the regulatory process through which decisions are to be made concerning a stream's "Future Volume."

  This field applies only to streams requiring future cleanup decisions. Using the pick list, select the appropriate response, if applicable. A copy of the pick list is provided in **Table B-9** of Attachment B.

6.3.3 Annual Stream Data

These data fields address the quantities of the stream added (e.g., generated, received from off-site, etc.), dispositioned (e.g., treated, disposed, etc.), and in inventory for each reporting period. The reporting periods are year-by-year (i.e., annually) through FY 2010 and five-year blocks for FY 2011 through FY 2070. In addition, these data fields serve to identify the PBSs responsible for the disposition and storage of the stream. ***Note that the annual quantity data are not applicable to ER media streams that are managed with in situ, no action, or access/institutional control strategies. However, these streams must be assigned to a disposition PBS via the Annual Stream Data screen***.

Annual Stream Data

- Units
- SNF Conversion Factor
- Initial Stream Inventory
- Annual Addition Quantities
- Annual Disposition Quantities
- Annual Inventory Quantities
- Non-Annualized Quantities
- Disposition PBS
- Inventory PBS

Units

- Units identifies the standard unit of measurement in which the annual quantities are reported. It also identifies the units for the Remaining Contaminated Media Volume (see Section 6.3.2.3).

  The AVS provides a pick list of valid quantity units. A copy of this list is provided in **Table B-10** of Attachment B. Report the annual quantities in the appropriate units per the following guidelines.

  - LLW, TRU, MLLW, and ER-HAZ streams should always be reported in cubic meters.

- HLW streams should reported in cubic meters, except for final disposal-ready product, which should be reported in "number of canisters".

- SNF streams should be reported in Metric Tons Heavy Metal (MTHM), with a conversion factor to cubic meters provided.

SNF Conversion Factor

- SNF Conversion Factor is restricted to Spent Nuclear Fuel streams only. Provide the appropriate factor for converting the quantities reported from metric tones of heavy metal (MTHM) to cubic meters (M3). Report the data in MTHM; the conversion factor will be used to satisfy requirements to also report in cubic meters. It is recognized that the conversion factor for a given stream may vary over time, however, provide a single best estimate.

Initial Stream Inventory

- Initial Stream Inventory is the ***actual end of FY 1997 inventory*** as reported via the CPQTs in the FY 1998 data.

Annual Addition Quantities

- Annual Addition Quantities identify the annual quantities of the stream added (e.g., generated, received from off-site, etc.) for each reporting period. For FY 1998, report the ***actual*** addition quantity. Report the estimated addition quantities for FY 1999 and beyond (see **Additional Quantity Data Guidelines** below).

Annual Disposition Quantities

- Annual Disposition Quantities identify the annual quantities of the stream dispositioned (e.g., treated, disposed, etc.) for each reporting period. For FY 1998, report the ***actual*** disposition quantity. Report the estimated quantities to be dispositioned for FY 1999 and beyond (see **Additional Quantity Data Guidelines** below).

Annual Inventory Quantities

- Annual Inventory Quantities identify the quantities of the stream in inventory (i.e., storage) at the end of each reporting period. These quantities are calculated by the AVS for each reporting period based on the addition and disposition quantities reported for that period and the inventory as of the end of the previous period. For example, the FY 1998 inventory is calculated by adding the FY 1998 addition quantity to the initial (end of FY 1997) stream inventory and subtracting the FY 1998 disposition quantity from that total. Note that, per the above discussions, the FY 1998 inventory is a calculated ***actual*** value while the inventories for FY 1999 and beyond are estimates.

Non-Annualized Quantities

- Non-Annualized Quantities identifies the balance of the life-cycle addition or disposition planned (i.e. FY 1999 - 2070) quantities for which a breakdown per the reporting periods cannot be provided.

Additional Quantity Data Guidelines

Following are additional guidelines for reporting the annual addition and disposition quantities.

- In general, reporting integer quantities to two significant figures is sufficient. It is not necessary to report quantities below tenths of a cubic meter.

- Volumes should be reported considering the storage method that is/would be applied to stream. The following are suggested guidelines:

  Containerized streams – Report as gross volumes.
  With respect to actual volumes, it is anticipated that most sites maintain data on the number, and associated gross volume, of each container type used to package the waste. Whether gross or net volumes are reported for planned quantities may not matter, given the margin of error. However, following the logic for actual volumes, gross should be reported.

  Tank streams -- Report as net volumes

  Waste pile (bulk streams) -- Report as net volumes

Disposition PBS

- Disposition PBS is the PBS that is responsible for disposition of the stream during the specified reporting period. Note that while the responsible PBS may vary over the reporting periods, only one PBS may be specified for a given reporting period. The AVS includes a pick list of valid PBSs. A copy of this list is provided in **Table B-11** of the Attachment B. Select the appropriate PBS per the guidelines below.

Inventory PBS

- Inventory PBS is the PBS that is responsible for storage of the stream during the specified reporting period. As above, select one PBS from the pick list for each reporting period.

PBS Selection Guidelines

- The responsible PBS is that which expends the funds to either disposition or store the stream. As such, existing references to "chargeback" should be eliminated. In other words, it is the site that receives the chargeback dollars and the PBS that accounts for and expends those dollars to actually perform the work?

- The responsible PBS may vary over the reporting periods, however, only one PBS may be specified for a given reporting period. This applies separately for disposition and storage (i.e., the responsible PBSs for disposition and storage may be different for the same reporting period).

It is recognized that, in some instances, adherence to this guideline may pose difficulty. Due to budget-driven nuances, more than one PBS may, at times, be responsible for the disposition or storage in a given reporting period. In the few cases where this situation exists, select the most appropriate PBS in conformance with these guidelines. If desired, provide an explanation in the comments field to clarify why the given PBS was selected.

- When the disposition of a stream will occur off-site, the responsible disposition PBS should be that which expends the funds to perform any pre-shipment work and/or the actual shipment.

- With the exception of streams destined for disposal at WIPP, the responsible PBS for disposition or storage must be under the control of the reporting site (e.g., Hanford would not identify an Oak Ridge PBS as being responsible for the disposition or storage for one of their streams). **For streams destined for disposal at WIPP, the reporting site (i.e., shipping site) should select the CAO WIPP transportation PBS (PBS# CAO-3) as the Disposition PBS.**

- For ER streams that are managed with in situ, no action, or access/institutional control strategies, identify the responsible disposition PBS in the Non-Annualized data field.

- If the responsibility for storage or disposition of the stream is outside of EM, select "Non-EM PBS".

AVS Seeding Notes

The FY 1998 data allowed for multiple PBSs to be identified as responsible for the disposition or storage of a stream in a given reporting period. In the instances where this occurred, the responsible PBSs were not seeded in AVS. The sites were provided print outs of these FY 1998 data during the on-site, AVS training sessions in mid-January. Contact Jonathan Kang (jonathan.kang@em.doe.gov) if additional copies of the old data are needed.

6.3.3.1 Relationship to Performance Measures

Table B-12 in Attachment B summarizes the logic used to roll up SDD for comparison with PBS-level waste management performance measures. In addition to the specific logic shown in **Table B-12**, certain exclusions apply to all the measures. These include streams meeting either or both of the following criteria:

- Streams identified as Wastewaters (i.e., MPC Code = L1100) or Ground/Surface Waters (i.e., MPC Code = L1300)
- Streams subject to the ER exclusion:
  - Source is one of the restoration response strategies (i.e., the source activities applicable only to ER streams--see Table B-8), and
  - Disposition TSD System is on-site CERCLA cell, commercial, or "TBD"

6.3.4 Transportation Information

This section addresses the SDD transportation-related requirements. Sections 6.3.4.1 and 6.3.4.2 address the stream-level transportation elements. Section 6.3.4.3 addresses the site-level information.

Transportation

- Material is in shippable container

Annual Transportation Data
- Material Category
- Package Type
- Capacity
- Mode
- # of Shipments
- Percent

6.3.4.1 Stream-Level Transportation Details

These data elements address transportation-related details for streams with disposition paths that will involve transportation subject to DOT regulations. These elements are only applicable to streams for which the response to DOT Regulations Apply is "Yes" (see Section 6.3.2.2).

If any of the following information is not known at this time, enter a TBD (where applicable) and/or provide a comment in the Comment field (see Section 6.3.2.1) to clarify gaps in transportation data and provide an estimate of when the information might be available.

Material is in a Shippable Container

- Material is in a Shippable Container only applies if the stream has an existing inventory at the end of FY 1998 and indicates, if the response is "Yes", that at least 40% of the existing inventory is packaged in DOT certified containers ***and*** that the packaging meets the WAC of the destination site/TSD System. Note that if the given packaging is normally shipped in an overpack, a "Yes" response indicates that it is already in the overpack and awaiting shipment.

Annual Transportation Data

The following data elements constitute the transportation information that is requested for each year or five-year block (i.e., reporting period) for which a ***planned*** disposition quantity of the stream is reported (see Section 6.3.2.4). Note that the data are only requested for the ***planning*** reporting periods (i.e., FY 1999 and beyond).

The AVS displays a window which shows the disposition quantities reported for each of the planning reporting periods. Entry of the data into AVS is accomplished as follows:

1) Highlight each reporting period for which a non-zero disposition quantity is reported.
2) Identify the unique combination(s) of Material Category, Package Type, Capacity, and Mode that will apply for that reporting period. Each unique combination of these data constitutes a "***Transportation Record***".
3) Identify the Percent of the disposition quantity that will be shipped via each "***Transportation Record***" and the associated # of Shipments.

Following are the definitions and related information concerning each of the specific data elements.

Material Category

- Material Category identifies the DOT material classification(s) (ref. 49 CFR 173.403) that is applicable to all, or part, of the disposition quantity for the reporting period.

  The AVS includes a pick list of valid responses. A copy of this list is provided in **Table B-13** of Attachment B. Select as many responses as are applicable for the reporting period. If the category is not yet known, select "TBD" from the pick list.

Package Type

- Package Type identifies the planned or most probable DOT package type to be used in the reporting period for the disposition quantity within each specified Material Category.

  The AVS includes a pick list of valid responses. A copy of this list is provided in **Table B-14** of Attachment B. If the package type is not yet known, select "TBD" from the pick list.

Capacity

- Capacity is the volume in cubic meters (to three significant figures) of the stream that can be placed in the Package Type. For example: a 4 ft. by 4 ft. by 6 ft. box contains 2.72 cubic meters.

Mode

- Mode is the planned or most probable transportation mode to be used in the reporting period for the disposition quantity that is within the specified Material Category and Package Type/Capacity.

  The AVS includes a pick list of valid responses. A copy of this list is provided in **Table B-15** of Attachment B. Select "TBD" if the transportation mode has not yet been determined.

# of Shipments

- # of Shipments is the number of shipments during the reporting period that are planned for the disposition quantity of the stream that is within the specified combination of Material Category, Package Type/Capacity, and Mode.

  Any whole number of shipments corresponding to the streams shipping plans are acceptable. For the rail mode, consider each rail car as a shipment. For example, a train of 11 cars is 11 shipments (even if a rail car might be loaded with two semi-trailers). For the truck mode, consider a single trailer as a shipment. For example a truck convoy of 10 double trailers is 20 shipments.

Percent

- Percent is the percentage of the disposition quantity for the reporting period that is within the specified combination of Material Category, Package Type/Capacity, and Mode.

  The correct response would be "100" if only one ***Transportation Record*** has been defined (i.e., unique combination of Material Category, Package Type/Capacity, and Mode). If two or more ***Transportation Records*** have been defined, the sum of the percentages for each must equal 100.

AVS Seeding Notes

The FY 1998 data collected via the CPQTs only required a life-cycle summary of the transportation information. Since, the SDD now require the information on an annual basis, the FY 1998 data could not be seeded into AVS. The sites were provided print outs of their FY 1998 transportation data during the on-site, AVS training sessions in mid-January. Contact Jonathan Kang (jonathan.kang@em.doe.gov) if additional copies of the old data are needed.

6.3.4.2 Large Objects Information

Large Objects

- Object Id
- Object Name
- Dimensions
- Weight
- Stream Record #

The following data on large objects are requested to support transportation planning. Large Objects are defined as being too large to fit in any existing packaging such that sizing is required to enable packaging and transport. Some sites have entire streams (contaminated large equipment) that are comprised of Large Objects. Some individual Large Objects, because of their unique management requirements, may comprise an entire stream.

Object Id

- Object Id is not an editable data field. It is a unique identifier assigned by the data system. As new objects are defined by the field, they are assigned the next available sequential number.

Object Name

- Object Name is a descriptive name for each Large Object. The name may include references to the object location or condition (e.g., D-12 Cat in Yard 13 with alpha-rad)

Dimensions

- Dimensions identify the length, width, and height of the object in meters.

Weight

- Weight is the object weight in kilograms.

Stream Record #

- Stream Record # identifies the stream in which the large object is contained. The AVS includes a pick list which will display the Record #s of the streams reported by the site. Select the appropriate stream from the pick list.

AVS Seeding Notes

These elements were incorporated into the SDD requirements during the FY 1998 IPABS requirements development process. As such, there were no data available in the FY 1998 data set for seeding these elements.

6.3.4.3 Type B Package Inventory

The purpose of these data elements is to identify each site's inventory of available Type B packaging to support transportation planning efforts. In providing these data, be sure to include the following:

Type B Packaging

- Record #
- Package Name
- Quantity
- Serial #
- Certification #
- Certification Date
- Certified By
- Certification Expiration
- Package Condition
- Comments

- Type B packaging owned, or leased, by the site (even if on-loan or temporarily located at another site)

- Commercially owned Type B packaging that is currently located at the site.

Guidelines for providing these data are as follows:

1. First, identify all the different types of Type B packaging and record the number of available, specific containers of that type.

Record #

- Record # is a unique identifier assigned by the data system to each identified type of Type B packaging. It is not an editable field.

Package Name

- Package Name is the name of each identified type of Type B packaging (e.g., GE-2000).

Quantity

- Quantity is the available number of specific containers within each identified type of Type B packaging.

2. Then, on the AVS Type B Package Detail screen, provide details on the identification and certification/use status of each package as follows:

Serial #

- Serial # is the package-specific unique serial number assigned to each Type B package.

Certification #

- Certification # is the most recent package certification number.

Certification Date

- Certified Date is the date when each Type B Package was last certified.

Certified By

- Certified By is the organization that certified the package (e.g., DOE, NRC).

Certification Expiration

- Certification Expiration is the date when the current certification expires.

Package Condition

- Package Condition indicates (when checked) that the Type B package is currently useable.

Comments

- Comments is an ***optional*** field for providing any additional details that may be helpful: why the container is not currently usable, anomalies detected during preventative maintenance checks (e.g., broken seal), the schedule for repairs and/or re-certification, notes on the location or current contents of the package, etc.

Owners of Type B Packages (e.g., CAO in the case of TRUPACT-IIs) will supply requested data except in the case of commercially owned packages, in which case the site at which they are located will supply the information.

6.3.5 Stream Characteristics

Stream Characteristics

- Total Activity and Isotope Data
- Hazardous Contaminant Data
- Contaminant Basis

These data elements identify and quantify the isotopes and hazardous constituents contained in the stream. To update the "12/21/98 Guidance" for the FY 1999 Spring Update, these data are required for all streams and are due September 30, 1999. A separate memo will be provided in the near future providing further clarification on required stream characteristic data. Overly detailed or conservative existing data need not be reported.

These data will be used to support the *LLW Disposal Capacity Report*, Congressional Q's & A's, and other technical analysis. This information is also required in the settlement agreement with NRDC.

AVS Seeding Notes

These elements were incorporated into the SDD requirements during the FY 1998 IPABS requirements development process. As such, there were no data available in the FY 1998 data set for seeding these elements.

Total Activity and Isotope Data

- The purpose of these data elements is to 1) identify the total activity associated with the stream, and 2) identify and quantify key individual isotopes contained in the stream.

  In the **Total Activity** field, report the sum of the activities of the individual long-lived radionuclides (i.e., half-lives of greater than one year) that comprise the stream. Activities of short-lived decay products (i.e., half-lives of less than one year) that accompany longer-lived radionuclides, e.g., yttrium-90, barium-137m and thorium-234, should not be included in this total.

If a stream contains important isotopes not on the pick list, contact Jonathan.Kang@em.doe.gov to have them added.

Approximately 50 key isotopes must be considered in reporting individual isotope data for each stream. These are coded into the AVS as a pick list. A copy of this list is provided in **Table B-16** of Attachment B. Using the pick list, complete the Isotope Data table as follows:

- Select or add each isotope contained in the stream from the pick list.

- Provide the concentration and associated units for each isotope. Note the following:

  - To enable complex-wide analysis, concentration data are preferred on a volume basis (e.g., nCi/ml). The reason for this is that the stream inventory and annual quantities are reported on a volume basis (i.e., M3). However, if you report concentrations in mass units you are encouraged to also provide a density for conversion to a volumetric basis. A "default density", based on the LLW Disposal Capacity Analysis will be displayed and assumed if you do not provide one. The AVS includes a pick list of valid concentration units. A copy of this list is provided in **Table B-17** of Attachment B.

  - Data fields are provided to report **average, lower, and upper concentrations**. This is not to imply that all are required, but rather is intended to accommodate available

information. At a minimum, provide an average or upper concentration limit (i.e., a lower limit by itself is not useful for analysis).

- Leave the concentration fields blank if the concentration is not known or cannot be estimated for a given isotope (i.e., "nulls" will be interpreted as unknown).

- The individual average or upper limit isotope concentrations are not intended to add up to, or directly relate to the reported total activity--although they should not be greater than the total activity when summed across the stream volume (reported inventory plus projected generation).

- The Decay date should be provided in the Stream Comment field. Most available data are believed to consist of "undecayed" values. Provide the best available information and indicate in the stream comment field the "as-of date".

- With respect to reporting individual isotopes, the activity of daughters, where applicable, should not be reflected in the concentration values. For example, if a stream contains 100 pCi/ml of Sr-90, the concentration reported for Sr-90 should be 100 pCi/ml. It is presumed that 100 pCi/ml of Y-90 is also present.

Hazardous Contaminant Data

- The purpose of these data elements is to identify and quantify the hazardous contaminants contained in the stream. These elements are only applicable to waste/media streams subject to regulation under RCRA or TSCA (e.g., applies to HLW only if it is also considered mixed waste).

  Identification of the hazardous contaminants begins with specifying the hazardous waste codes applicable to the stream, followed by identification of the associated constituent(s). The AVS includes a list of valid hazardous waste categories/codes and their associated specific constituent(s). The "default list" of categories/codes, shown in **Table B-18** of Attachment B, comprises the following:

  - Except for hazardous waste from specific sources (i.e., "K" listed codes), the list includes the universe of EPA codes as identified in 40 CFR 261. The "default" constituent(s) associated with each EPA code include those identified in 40 CFR 261 and any additional constituent(s) for which LDR treatment standards for the code are established in 40 CFR 268. Note that for certain EPA codes, particularly D001, D002, and D003, the "default" constituents are generic as there is no direct,

one-to-one correlations between these EPA codes and specific contaminants.

- Certain codes are indicative of state-only regulated waste in California, New York, and Washington. The "default" constituent for these codes generically indicates the state where regulated.

- Categories to facilitate identification of TSCA-regulated constituents (i.e., "PCB - Polychlorinated Biphenyls" and "ASB - Asbestos").

- Categories to generically identify the types of hazardous contaminants contained in a stream (i.e., "MET - Metal Contaminants" and "ORG - Organic Contaminants"). In addition, "UNK - Unknown" is included.

Using the pick list, report the hazardous contaminant data per the following guidelines:

- Select or add the categories/codes applicable to the stream from the hazardous contaminant category/code list. The selected, or added, categories/codes will appear in the applicable hazardous contaminant code window.

  - Select "MET" or "ORG" as applicable if the stream is suspected to contain hazardous metal or organic contaminants but specific applicable codes are not known.

  - Select "UNK" if the stream is suspected to contain hazardous contaminants but the specific applicable codes are not known, nor is it known whether hazardous metal or organic contaminants are present.

- Select or add the associated contaminant(s) for each applicable hazardous contaminant category/code. In AVS, this is accomplished by highlighting the applicable category/code and clicking the hazardous contaminant add button. Note the following:
  - Pressing the hazardous contaminant add button will reveal the "default" contaminants associated with the highlighted applicable category/code. You may add one or more specific contaminants that do not appear on the default list.

  - Certain codes (e.g., F listed solvents) will have multiple "default" contaminants. Select or add each contaminant that applies.

- Provide the **concentration** and associated **units** for each reported contaminant. Note the following:

  - The AVS includes a pick list of valid concentration units. A copy of this list is provided in **Table B-19** of Attachment B.

  - As with the isotope information, data fields are provided to report average, lower, and upper concentrations. This is not to imply that all are required but, rather, is intended to accommodate available information. At a minimum, provide an average or upper concentration limit (i.e., a lower limit by itself is not useful for analysis).

  - Leave the concentration fields blank if the data is not known, or cannot be estimated, for a given contaminant (i.e., "nulls" will be interpreted as unknown).

Contaminant Basis

- Using the pick list, select the response which most accurately characterizes the overall basis and confidence in the reported isotope and hazardous contaminant data. The pick list was designed in response to a site's desire to adequately caveat any radiological or hazardous contaminant data they provide. A copy of the pick list is provided in **Table B-20** of Attachment B.

6.3.6 Programmatic Risk Barriers

A **barrier** is an obstruction to the planned disposition path of waste or material. A Disposition Path defines the work scope required to move waste, media, and spent fuel streams from their current position to their "end state." Programmatic risk barriers are distinct from risk to the worker, public, and environment.

TSD System Barriers
Stream Barriers

- Barrier Category
- Issues and Comments
- Site Needs
- Associated Work Package

As Operations/Field Offices take on the challenge of accelerating site closure dates, barriers with high scores will become the focus of attention to ensure appropriate visibility and resources are provided.

Types of Barriers

Barriers to disposition are evaluated for each stream and TSD System. The four barrier types are:

- Intersite Dependency (streams only)
- Work Scope Definition (TSD systems and streams)
- Technology (TSD systems and streams)
- TSD system or Equipment Limitation (TSD systems only)

AVS Seeding Notes

The AVS is seeded with programmatic risk barrier information collected by EM Integration in fiscal year 1998. This information was collected during site teleconferences and interviews via a questionnaire. The Site Needs and Focus Area work packages were seeded from data collected by the Needs Management System (NMS) through January 15, 1999.

Scoring of Barriers

Each barrier type is given a score from 1 to 5 indicating how serious the barrier issues are. The higher the score, the more difficult the barrier is to overcome. If no score is selected, the barrier score defaults to one.

In Attachment B, **Table A-21** lists barriers and their associated issues. If more detailed guidance is desired refer to Attachment B **Tables B-22 - B-25.**

First locate the table corresponding to the barrier type selected. Next locate the issue selected from the left column in the table. Review the examples in the corresponding row and make a judgement of what score should be assigned, based on knowledge of the issue. If, in the barrier screen, more than one issue for the same barrier was entered, select the highest score as the overall score for that barrier type in the pick list. **Barriers are scored at the barrier type level and not at the issue level.**

Display of Barriers on Disposition Maps

The highest score of all the applicable barrier types is the limiting barrier score. This score is indicated on the disposition map as a green, yellow or red icon or stoplight. Green corresponds to a score of 1, yellow corresponds to a score of 2 or 3, and red corresponds to a score of 4 or 5. Table 6.1 shows what these scores reflect.

Table 6.1: Disposition Path Status and Barrier Score

Disposition Path Status	Barrier Score
Red (square) Path is inoperable. Significant barriers must be overcome before implementation can be accomplished.	High (4 or 5)
Yellow (triangle) Path forward is identified but not assured. Some uncertainty or minor problems exist that could impede implementation.	Medium (2 or 3)
Green (circle) Path is operable. No significant problems or schedule delays are anticipated.	Low (1)

Existing streams or "sources of waste or material" are depicted as boxes down the left side of the disposition map with a stream arrow out the right side. Such a "source stream" has an activity of Generation, Collect and Treat, Collect and Dispose, Collect and Recycle, Collect and Store, or In Situ Management.

A source stream will have two overall barrier icons on the disposition map. One relates to the generation activity, and the other relates to the disposition/inventory activity. Source streams have potential "generation" issues that other streams don't have: retrieval issues, characterization issues, and storage issues. For source streams, programmatic risk barrier information is collected for "generation issues," in addition to the disposition barriers.

Intersite Dependency (streams only)

The Intersite Dependency programmatic risk barrier is related to the interface between two sites. When waste or material is being transferred to another site, agreements must be reached between the source and destination site to complete the transfer.

Table B-22 in Attachment B provides detailed guidance on how intersite dependency issues influence scoring.

The Work Scope Definition programmatic risk barrier deals with the maturity of the disposition path strategy. A mature disposition path has a well-characterized waste or material, all the process operations are identified and operating, disposition location is finalized, and any equity concerns have been resolved.

Work Scope Definition (streams and TSD systems)

The Work Scope Definition barrier also deals with activities governed by either the Environmental Protection Agency (EPA) or Nuclear Regulatory Commission (NRC) regulations. The environmental regulations include National Environmental Policy Act (NEPA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), air quality, water quality, hazardous waste, and others, and may be Federal, state, county, or local regulations. Regulations governing transporting waste or materials, or occupational safety could also be included.

Table B-23 in Attachment B provides detailed guidance on how work scope definition issues influence scoring.

Technology (streams and TSD systems)

The Technology programmatic risk barrier deals with the need for the development or refinement of technologies to assist in dispositioning the waste or material.

Table B-24 in Attachment B provides detailed guidance on how technology issues influence scoring.

Where technology development is necessary to ensure completion or for enhancement of the planned disposition path, there is a science or technology "need" (barrier score greater than "two") or possibly an "opportunity,"(barrier score "one" or "two"). These needs or opportunities are identified in Site Needs. Site Needs are communicated to Focus Areas for actual technology development work. Site Needs associated with disposition streams or TSD systems should be identified when the technology barrier score is greater than "two."

Note: If a site need is being addressed by more than one Focus Area work package, show this separately. The following is an example showing one need being addressed by two work packages and one work package addressing two needs.

Table 6.2: Example of Multiple Work Packages for a Site Need

Site Needs	Associated Work Package
ID-3.1.31 – Dioxin, Mercury, and HCl/Cl2 Control for Incinerator Emissions	MW-06 – Monitoring and Removing Hazardous and Radioactive Contaminants from Off Gas Streams
ID-3.1.31 – Dioxin, Mercury, and HCl/Cl2 Control for Incinerator Emissions	MW-08 - Facilitating Deployment for Unique Wastes
ID-3.2.32 – Develop Thermal Treatment Unit Offgas CEM Monitors	MW-06 – Monitoring and Removing Hazardous and Radioactive Contaminants from Off Gas Streams

Site Needs and Focus Area work packages that are not on the AVS pick lists may be entered into the NMS. The pick lists include all the information available from NMS as of January 15, 1999.

Additional information on Site Needs can be accessed via the Needs Management System (NMS) (http://em-needs.em.doe.gov). Contact the Site Technology Coordination Group coordinator or the appropriate Focus Area contact for work package information:

Contact Name	**Focus Area**	**Phone #**
Paul Hart	D & D	304-285-4358
Bill Owca	Mixed Waste	208-526-1983
Jim Wright	Subsurface Contamination	803-725-5608
Ted Pietrok	Tanks	509-372-4546

TSD System or Equipment Limitation (TSD Systems only)

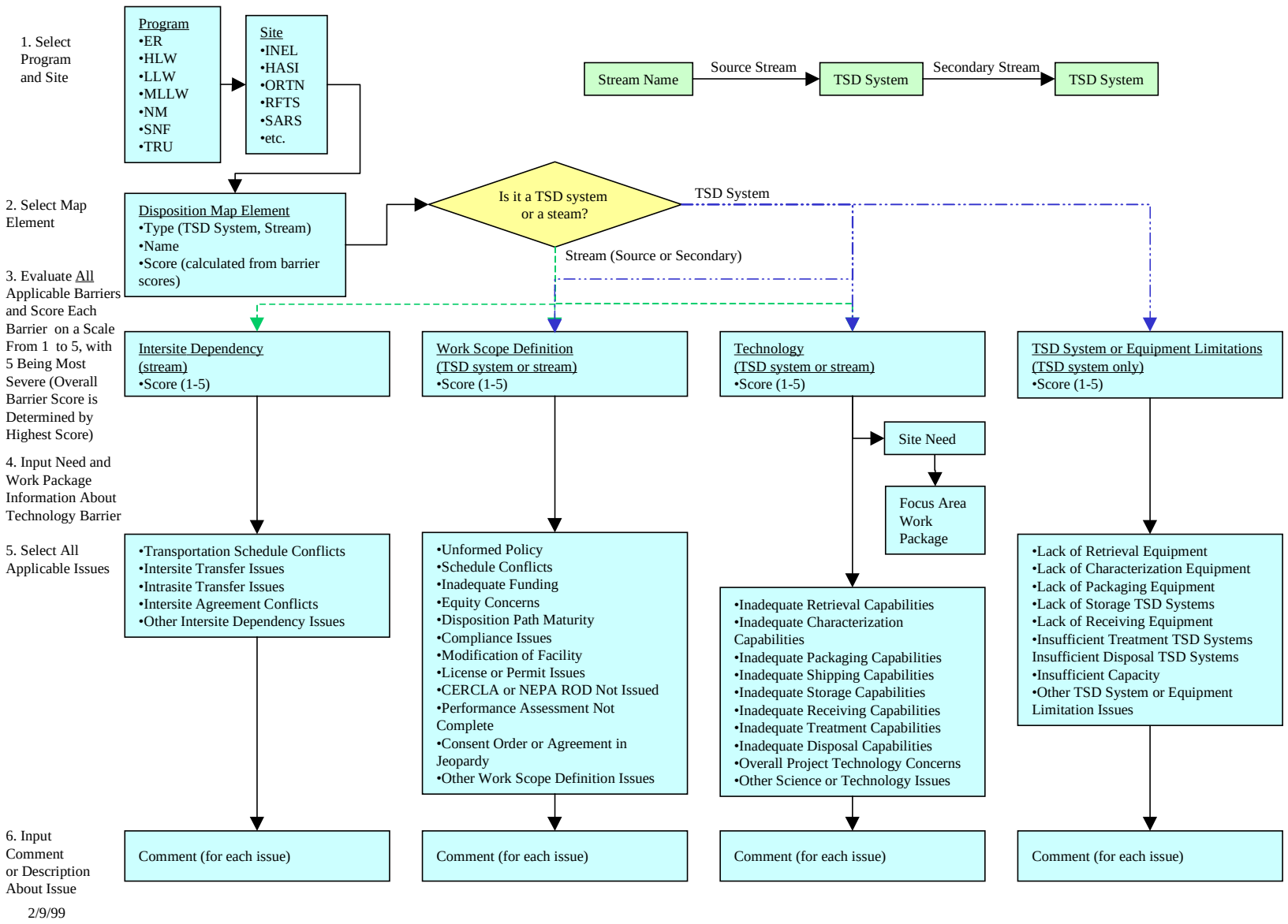
The TSD System or Equipment Limitation programmatic risk barrier deals with non-technology problems relating to waste or material disposition.

Table B-25 in Attachment B provides detailed guidance on how TSD system or equipment limitation issues influence scoring.

Optional Identification of Issues-Causing Barriers

For each barrier type, an optional pick list of the potential issues is provided on screen. By selecting the appropriate issues, the cause(s) of the barrier can be identified. If desired, comments can be provided to further define each of the selected issues. **Note:** For each barrier type, more than one issue can be selected, but a particular issue, like funding, can only be selected once per barrier, so all comments concerning that issue must be entered into the same comment box. **Exhibit 6.1** summarizes barrier types and associated barrier issues.

Exhibit 6.1: Barrier Types and Associated Barrier Issues



6.4 Glossary of Key Terms

Disposition Streams

Disposition Stream -- a group of materials, media, or wastes having similar origins, waste type, physical and contaminant characteristics, management requirements [i.e., same disposition path], or barriers to disposition. Streams are stored or dispositioned by only one EM project (i.e., PBS) in a given year. Each management step depicted on a disposition map (i.e., each arrow) is a separate stream. A stream is dispositioned when it enters the next TSD System or is transferred to another site, or is combined with a "parent" stream. Streams are further defined as being stored or dispositioned by only one Project at a time.

Waste Stream – disposition stream classified as a waste. Any stream on a disposition map that is neither a "media stream" or "material stream" as defined below, or uncontaminated material (i.e., has a waste type designation of "uncontaminated"). This definition of waste stream includes only disposition streams as defined above. It should not be confused with "waste stream" as defined under RCRA, or any of a myriad of site-specific definitions (which is usually associated with a much more detailed reporting level).

Contaminated media stream – disposition stream that includes contaminated media (e.g., soil, rubble, debris) that has not yet been removed from its source. If a volume of contaminated media is removed (through an ex situ response strategy), it becomes waste, including any portion of the stream that is in interim storage (inventory).

Parent Stream – stream that is to be managed by incorporating it into another stream to effect its disposition. Disposition by incorporation into parent streams should be restricted to special circumstances where losing the identity of the child stream cannot be avoided.

Management Activities

Storage -- the collection and management of waste for the purposes of awaiting treatment or disposal capacity, in such a manner as to not constitute disposal of the waste.

Inventory -- amount in storage at a particular time (e.g., end of year inventory)

Treatment -- any method, technique, or process designed to change the physical or chemical character of waste to render it less hazardous; safer to transport, store, or dispose; or reduce its volume

Disposal -- emplacement of waste in a manner that ensures protection of human health and the environment within prescribed limits for the foreseeable future with no intent of retrieval and that requires deliberate action to regain access to the waste.

Waste Types

High Level Waste (HLW) -- highly radioactive waste material resulting from the reprocessing of SNF, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations; and other highly radioactive material that is determined, consistent with existing law, to require permanent isolation.

Transuranic Waste (TRU) -- radioactive waste containing more that 100 nanocuries of alpha-emitting transuranic isotopes per gram of waste, with half-lives greater that 20 years, except for: HLW; waste the Secretary of Energy has determined, with concurrence of the EPA administrator, does not need the degree of isolation required by the 40 CFR Part 191 disposal regulations; or waste the NRC has approved for disposal on a case-by-case basis in accordance with 10 CFR Part 61.

Mixed Low Level Waste (MLLW) -- waste containing both a radioactive component subject to the Atomic Energy Act, as amended, and a hazardous component subject to the Resource Conservation and Recovery Act, as amended. (Includes LLW regulated under TSCA.)

Low Level Waste (LLW) -- radioactive waste, including accelerator-produced waste, that is not HLW, SNF, TRU, byproduct material (as defined in section 11e.(2) of the Atomic Energy Act of 1954), or naturally occurring radioactive material.

Hazardous Waste (HAZ) -- waste containing a hazardous component subject to the Resource Conservation and Recovery Act, as amended or defined as hazardous by state regulation. (Includes waste regulated under TSCA)

ER Response Strategies

In Situ Containment – Response strategy consisting of the placement of a barrier, seal, or diversion to contain the further spread of contamination (e.g., capping, lateral barrier, interception).

In Situ Treatment – Response strategy consisting of the treatment of contaminated media in place (e.g., chemical stabilization, biodegradation, flushing).

Access/Institutional Control – Response strategy consisting of monitoring and limiting public access and/or usage of an area containing contaminated media (e.g., physical restrictions, monitoring, administrative restrictions).

No Further Action – Response strategy in which a decision of “no further action” is anticipated.

Collect and Dispose – Response strategy consisting of the removal of contaminated media for the purpose of direct disposal in an engineered disposal cell.

Collect and Treat – Response strategy consisting of the removal of contaminated media for the purpose of physical or chemical processing.

Collect and Recycle – Response strategy consisting of the removal of contaminated media for processing and reuse.

Collect and Store – Response strategy consisting of collection of contaminated media for containerized or bulk storage.

Stream Characteristics

Total Activity -- the sum of the activities of the individual long-lived radionuclides (i.e., half-lives of greater than one year) that comprise the stream. Activities of short-lived decay products (i.e., half-lives of less than one year) that accompany longer-lived radionuclides, e.g., yttrium-90, barium-137m and thorium-234, should not be included in this total.